



ONTARIO SOIL BASELINE SURVEY

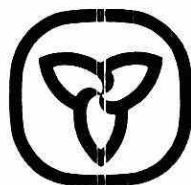
ANALYTICAL DATA 1980-1981

VOLUME 2

ANALYTICAL DATA FOR SOUTHERN ONTARIO

A.P.I.O.S. #008/83

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ONTARIO SOIL BASELINE SURVEY
- ANALYTICAL DATA 1980-1981

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VOLUME 2
ANALYTICAL DATA FOR SOUTHERN ONTARIO

TERRESTRIAL EFFECTS PROGRAM
ACIDIC PRECIPITATION IN ONTARIO STUDY

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ONTARIO MINISTRY OF THE ENVIRONMENT
November, 1983

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ACKNOWLEDGEMENTS

S.N. Linzon, Chairman of the A.P.I.O.S. Terrestrial Effects Working Group originated the concept of the soil baseline program and has guided its development since its inception.

During 1980 and 1981, the collection of soil samples throughout Ontario involved a number of people whose names cannot be individually mentioned here. This work was accomplished under the co-ordination of M.A. Griffith (Southern Ontario), T. Spires (Northeastern Region) and W. Carswell (Northwestern Region). The development of an A.P.I.O.S. soils' laboratory and the chemical analyses of all soil samples were undertaken by the Laboratory Services Branch under the direction of A. Neary. Micom 2001 Word Processing Services typed the tables that form the bulk of Volumes 2 and 3.

Volume 1 of this report was written by M. A. Griffith, A.P.I.O.S., Soil Specialist, Phytotoxicology Section, Air Resources Branch. T. Spires of Northern Terrestrial Consultants and P. Barclay, Lakehead University provided most of the information regarding Northeastern and Northwestern Ontario, respectively. All members of the Terrestrial Effects Working Group's Technical Subcommittee assisted in various editing stages of the report, principally D. Griffin, W. McIlveen and D. Dimma.

SUMMARY

The soil baseline program began in 1980 and is part of the Ministry of Environment's Acidic Precipitation in Ontario Study (A.P.I.O.S.). Over 300 locations were sampled in 1980 and 1981 throughout the province. Soil samples were analyzed at the Ministry's laboratory for pH, texture, iron, aluminum carbonates, major cations, anions and trace metals. A reliable, current and uniform data base for soils across Ontario now exists and is presented in Volumes 2 (Analytical Data for Southern Ontario) and 3 (Analytical Data for Northern Ontario) of this report. This data base is being used by A.P.I.O.S. researchers to design laboratory experiments which will define soil sensitivity criteria. Ultimately, a map will be produced which will show the relative sensitivities of Ontario soils to acidic deposition. Resampling baseline soil profiles over an extended period also provides a means of monitoring trends in soil chemistry due to environmental stress.

This report is mainly a presentation of field and laboratory soil information (Volumes 2 and 3). The major objectives of the soil baseline program and methods used to sample soils are provided in Volume 1. In addition, the glacial history of Ontario, some theories of soil development, and the effect of acidic precipitation on soils are briefly outlined in Volume 1.

SOIL BASELINE ANALYTICAL DATA, 1980-1981

SOUTHWESTERN REGION

SOIL PROFILE INFORMATION

Horizon Depth

Site: Maidstone Conservation Area

Date: 80/06/03

Ah

0

Location Code: 1001014

Parent Material: clay

UTM: 17T 352350.0 4674700.0

Vegetation: red oak, ash, white oak, red maple

Classification: Rego Humic Gleysol

Cg

40

Landform: clay plain/till plain

Comments: mottled at depth (7.5YR 5/6)
water seeping in at 40 cm.

Slope: level

Sample No.	Horizon	Depth (cm)	Colour	Sand (%)	Silt (%)	Clay (%)	pH (H ₂ O)	pH (CaCl ₂)	Organic C (%)	Total Nitrogen (mg/g)	Extr. S (ug/g)	Extr. SO ₄ (ug/g)	Avail. P (ug/g)	Total P (ug/g)	Avail. Al (ug/g)
9091	Ah	0-20	5YR 3/1	24	28	48	6.97	6.43	3.43	2.86		14.4		670	
9093	Ah	0-20	5YR 3/1	24	30	46	6.94	6.32	3.66	3.80		14.4		920	
9090	Cg	40+	2.5YR 6/0	21	29	50	7.45	7.15	0.96	1.10		15.0		260	
9092	Cg	40+	2.5YR 6/0	19	30	51	7.61	7.05	0.90	1.29		11.9		350	

SOIL PROFILE INFORMATION (cont'd.)

Site: Maidstone Conservation Areaa

Classification: Rego Humic Gleysol

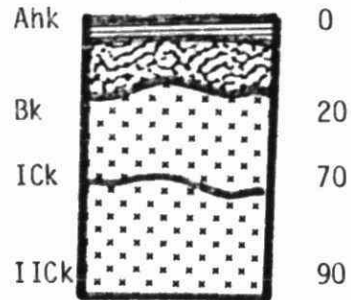
Sample No.	Horizon	Exchangeable Cations (ug/g)				C.E.C. (m.e.) 100g	Pyrophosphate (%)			Dithionite (%)			CaCO ₃ (%)	Metals (ug/g)			
		Ca	Mg	K	Al		Fe	Al	Mn	Fe	Al	Mn		Zn	Cu	Ni	Pb
9091	Ah	3518	524	95		22.01	0.16	0.08	0.0026	0.93	0.08	0.0026	1	100	49	33.0	17.0
9093	Ah	3474	512	137		21.80	0.16	0.10	0.0030	0.93	0.10	0.0030	0	110	42	35.0	20.0
9090	Cg	1845	400	123		4.32	0.09	0.05	0.0021	1.20	0.05	0.0021	1	98	46	34.0	11.0
9092	Cg	2819	571	95		18.88	0.11	0.07	0.0020	1.30	0.07	0.0020	1	100	39	36.0	12.0

SOIL PROFILE INFORMATION

Horizon Depth

Site: Fox Creek Conservation Area

Date: 80/06/03



Location Code: 1001015

Parent Material: lacustrine sand

UTM: 17T 347500.0 4654700.0

Vegetation: hawthorn

Classification: Orthic Melanic Brunisol

Landform: sand plain/beach

Comments: water seeping in at 60 cm,
near swamp

Slope: level

Sample No.	Horizon	Depth (cm)	Colour	Sand (%)	Silt (%)	Clay (%)	pH (H ₂ O)	pH (CaCl ₂)	Organic C (%)	Total Nitrogen (mg/g)	Extr. S (ug/g)	Extr. SO ₄ (ug/g)	Avail. P (ug/g)	Total P (ug/g)	Avail. Al (ug/g)
9101	Ahk	0-2		87	2	12	7.69	7.27	1.78	1.08		10.4		530	
9099	Bk ₁	2-20	10YR 5/3	90	1	9	8.22	7.52	0.17	0.13		4.2		310	
9100	Bk ₁	2-20	10YR 5/3	89	1	10	8.30	7.59	0.23	0.16		4.6		390	
9097	Bk ₂	20-70	10YR 3/2	92	1	7	8.59	7.74	0.13	0.10		4.1		520	
9098	Bk ₂	20-70	10YR 3/2	94	1	5	6.63	7.07	0.09	0.12		4.2		560	
9096	Ick	70	10YR 4/3	93	1	6	8.49	7.80	0.15	0.18		5.1		490	
9095	Ick	70	10YR 4/3	91	3	5	8.29	7.58	0.19	0.28		6.5		410	
9094	IICK	95+	10YR 4/1	45	25	29	7.92	7.52	6.42	3.82		73.9		410	

SOIL PROFILE INFORMATION (cont'd.)

Site: Fox Creek Conservation Area

Classification: Orthic Melanic Brunisol

Sample No.	Horizon	Exchangeable Cations (ug/g)				C.E.C. (m.e.) 100g	Pyrophosphate (%)			Dithionite (%)			CaCO ₃ (%)	Metals (ug/g)			
		Ca	Mg	K	Al		Fe	Al	Mn	Fe	Al	Mn		Zn	Cu	Ni	Pb
9101	Ahk	1044	1112	37		14.19	0.10	0.003	0.0040	0.30	0.010	0.000	14	38	17	7.6	8.0
9099	Bk ₁	185	9	16		1.02	0.02	0.01	0.0039	0.35	0.011	0.014	21	30	22	10.0	2.3
9100	Bk ₁	205	12	21		1.16	0.02	0.003	0.0050	0.35	0.015	0.019	23	30	23	11.0	2.4
9097	Bk ₂	143	9	16		0.81	0.02	0.01	0.0032	0.56	0.010	0.010	21	48	20	9.4	2.8
9098	Bk ₂	154	9	16		0.86	0.02	0.01	0.0031	0.75	0.010	0.009	16	33	23	9.0	3.6
9096	Ick	195	9	16		1.07	0.02	0.01	0.0033	0.39	0.011	0.010	23	32	23	10.0	3.1
9095	Ick	246	9	21		1.35	0.02	0.01	0.0032	0.42	0.010	0.009	19	31	17	9.4	3.2
9094	IICK	3084	167	31		16.80	0.11	0.02	0.0059	0.49	0.028	0.010	12	64	35	23.0	11.0

SOIL PROFILE INFORMATION

Horizon Depth

Site: Canard River Conservation Area

Date: 80/06/04

Ah

0

Location Code: 1001016

Parent Material: lacustrine clay

UTM: 17T 342850.0 4666550.0

Vegetation: sumac, hawthorne

Classification: Gleyed Humic Regosol

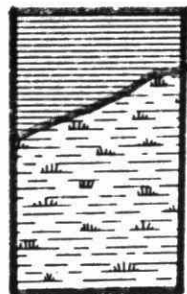
Landform: clay plain/till plain

Comments: mottles at 30 cm (5YR 5/6)

Cg

50

Slope: level



Sample No.	Horizon	Depth (cm)	Colour	Sand (%)	Silt (%)	Clay (%)	pH (H ₂ O)	pH (CaCl ₂)	Organic C (%)	Total Nitrogen (mg/g)	Extr. S (ug/g)	Extr. SO ₄ (ug/g)	Avail. P (ug/g)	Total P (ug/g)	Avail. Al (ug/g)
9104	Ahk	0-25	2.5YR 3/2	28	33	39	7.92	7.37	3.33	2.64		18.4		500	
9103	Cg	25-35	10YR 5/1	15	26	58	7.03	6.51	0.65	0.76		15.5		200	
9102	Cg	50+	10YR 5/1	19	25	56	7.09	6.74	0.57	0.73		20.8		270	
9107	Ah	0-25	2.5YR 3/2	31	30	39	7.84	7.32	3.46	2.71		20.8		440	
9106	Cg	25-35	10YR 5/1	26	24	50	7.06	6.62	0.90	1.05		19.8		240	
9105	Cg	50+	10YR 5/1	21	23	57	7.17	6.57	0.57	0.87		25.0		310	

SOIL PROFILE INFORMATION (cont'd.)

Site: Canard River Conservation Area

Classification: Gleyed Humic Regosol

Sample No.	Horizon	Exchangeable Cations (ug/g)				C.E.C. (m.e.) 100g	Pyrophosphate (%)			Dithionite (%)			CaCO ₃ (%)	Metals (ug/g)			
		Ca	Mg	K	Al		Fe	Al	Mn	Fe	Al	Mn		Zn	Cu	Ni	Pb
9104	Ahk	3124	1063	170		24.53	0.12	0.05	0.0069	1.5	0.13	0.051	5	86	27	22	24
9103	Cg	2345	272	116		14.17	0.18	0.08	0.0090	1.7	0.20	0.110	1	91	28	35	13
9102	Cg	1917	681	95		15.26	0.13	0.04	0.0040	1.7	0.19	0.029	1	83	39	43	12
9107	Ah	3255	268	203		18.86	0.08	0.03	0.0050	1.3	0.12	0.051	2	74	24	19	25
9106	Cg	1892	325	74		12.23	0.14	0.05	0.0037	1.4	0.00	0.023	2	79	36	31	14
9105	Cg	1748	33	95		9.22	0.15	0.06	0.0015	1.5	0.16	0.025	4	84	32	43	13

SOIL PROFILE INFORMATION

Horizon Depth

Ah/Ak 0

Cg 30

W 50



Site: Devonwood Conservation Area

Location Code: 1001017

UTM: 17T 336700.0 4680600.0

Classification: Gleyed Humic Regosol

Landform: clay plain

Slope: level

Date: 80/06/04

Parent Material: lacustrine clay

Vegetation: poison ivy, grass, maple, oak

Comments: mottles in pit, (7.5YR 5/6), water at 35 cm, beside Windsor Airport

Sample No.	Horizon	Depth (cm)	Colour	Sand (%)	Silt (%)	Clay (%)	pH (H ₂ O)	pH (CaCl ₂)	Organic C (%)	Total Nitrogen (mg/g)	Extr. S (ug/g)	Extr. SO ₄ (ug/g)	Avail. P (ug/g)	Total P (ug/g)	Avail. Al (ug/g)
9108	Ahk	0-20	10YR 3/2	33	33	33	8.13	7.61	2.50	2.08		21.1		410	
9109	Ah	20-35	10YR 3/2	36	27	37	7.88	7.38	2.79	2.51		33.1		580	
9110	Cg	35+	2.5YR 6/2	34	26	40	7.68	7.33	0.84	0.91		41.7		240	
9112	Ah ₁	0-20	10YR 3/2	16	37	47	7.80	7.27	3.61	3.72		27.1		1020	
9111	Ah ₂	20-35	10YR 3/2	37	25	37	7.57	6.16	3.31	2.78		42.5		620	

SOIL PROFILE INFORMATION (cont'd.)

Site: Devonwood Conservation Area

Classification: Gleyed Humic Regosol

Sample No.	Horizon	Exchangeable Cations (ug/g)				C.E.C. (m.e.) 100g	Pyrophosphate (%)			Dithionite (%)			CaCO ₃ (%)	Metals (ug/g)			
		Ca	Mg	K	Al		Fe	Al	Mn	Fe	Al	Mn		Zn	Cu	Ni	Pb
9108	Ahk	2431	377	181		15.62	0.07	0.04	0.0065	0.94	0.09	0.022	14	70	34	23	18
9109	Ah	2993	607	105		20.07	0.10	0.10	0.0016	0.70	0.11	0.004	2	76	30	22	14
9110	Cg	1742	373	80		11.79	0.06	0.04	0.0029	1.10	0.11	0.022	2	75	31	27	12
9112	Ah ₁	3080	535	269		20.35	0.09	0.05	0.0041	0.75	0.11	0.010	2.6	87	38	23	21
9111	Ah ₂	3168	643	105		21.24	0.11	0.09	0.0009	0.71	0.11	0.004	1	64	30	20	15

SOIL PROFILE INFORMATION

Horizon Depth

Site: Merlin

Date: 80/06/04

Ah



0

Location Code: 1001018

Parent Material: till

Bm

45

UTM: 17T 412600.0 4679000.0

Vegetation: grasses

Bk

70

Classification: Orthic Melanic Brunisol

Landform: till plain

Comments: gravel pit, stoney, 100 m N. of Lake Erie, near A.P.I.O.S. precipitation collector

Ck

100

Slope: gently sloping

Sample No.	Horizon	Depth (cm)	Colour	Sand (%)	Silt (%)	Clay (%)	pH (H ₂ O)	pH (CaCl ₂)	Organic C (%)	Total Nitrogen (mg/g)	Extr. S (ug/g)	Extr. SO ₄ (ug/g)	Avail. P (ug/g)	Total P (ug/g)	Avail. Al (ug/g)
9130	Ah	0-20	10YR 5/3	47	32	21	7.82	7.13	1.66	1.33		12.7		760	
9131	Ah	0-20	10YR 5/3	49	30	21	7.60	6.98	1.80	1.48		10.8		920	
9128	Bm	20-45	10YR 5/4	60	24	17	7.30	6.59	0.64	0.57		7.4		290	
9129	Bm	20-45	10YR 5/4	67	18	15	7.35	6.77	0.72	0.46		6.4		250	
9126	Bk	45-70	10YR 4/4	62	14	24	8.28	7.64	1.00	0.56		8.6		420	
9127	Bk	45-70	10YR 4/4	78	10	12	8.33	7.71	1.28	0.64		5.9		420	
9124	Ck	100	10YR 5/3	82	6	12	8.50	7.82	0.92	0.36		7.2		190	
9125	Ck	100	10YR 5/3	72	6	22	8.50	7.72	1.04	0.37		6.2		310	

SOIL PROFILE INFORMATION (cont'd.)

Site: Merlin

Classification: Orthic Melanic Brunisol

Sample No.	Horizon	Exchangeable Cations (ug/g)				C.E.C. (m.e.) 100g	Pyrophosphate (%)			Dithionite (%)			CaCO ₃ (%)	Metals (ug/g)			
		Ca	Mg	K	Al		Fe	Al	Mn	Fe	Al	Mn		Zn	Cu	Ni	Pb
9130	Ah	1848	91	128		10.26	0.05	0.02	0.0033	1.80	0.15	0.120	2	120	79	36	24.0
9131	Ah	1805	96	139		10.12	0.05	0.01	0.0140	1.80	0.16	0.120	2	120	70	36	23.0
9128	Bm	1302	107	43		7.46	0.07	0.02	0.0041	1.90	0.16	0.083	2	120	61	45	21.0
9129	Bm	1438	103	48		8.12	0.05	0.02	0.0140	1.80	0.13	0.063	2	100	63	44	17.0
9126	Bk	1758	89	48		9.60	0.03	0.01	0.0040	1.70	0.13	0.064	12	130	62	44	12.0
9127	Bk	1235	57	37		6.71	0.02	0.01	0.0046	1.50	0.08	0.053	20	92	62	40	10.0
9124	Ck	295	43	37		4.61	0.02	0.00	0.0029	0.89	0.04	0.022	29	63	55	24	7.4
9125	Ck	294	39	32		4.34	0.02	0.00	0.0031	1.10	0.05	0.025	30	67	56	27	7.7

SOIL PROFILE INFORMATION

Horizon

Depth

Site: Lorne C. Henderson Conservation Area

Date: 80/06/05

Ah

0

Location Code: 1001019

Parent Material: clay

Btgj

20

UTM: 17T 403000.0 4747900.0

Vegetation: hawthorn, grass

Bt

30

Classification: Orthic Gray Brown Luvisol

Ckg

50

Landform: clay plain/till plain

Comments: mottles at 30 cm (10YR 5/6)
earthworms in top 30 cm

Slope: level



Sample No.	Horizon	Depth (cm)	Colour	Sand (%)	Silt (%)	Clay (%)	pH (H ₂ O)	pH (CaCl ₂)	Organic C (%)	Total Nitrogen (mg/g)	Extr. S (ug/g)	Extr. SO ₄ (ug/g)	Avail. P (ug/g)	Total P (ug/g)	Avail. Al (ug/g)
9138	Ahp	0-20	10YR 4/2	12	48	40	6.93	6.41	2.90	2.23		12.1		340	
9139	Ahp	0-20	10YR 4/2	12	46	42	7.19	6.50	2.98	2.44		13.5		490	
9136	Btgj	20-30	10YR 4/1	5	41	54	7.32	6.75	0.87	1.21		9.8		320	
9137	Btgj	20-30	10YR 4/1	3	31	66	7.34	6.95	0.68	0.80		10.4		290	
9134	Bt	30-40	10YR 5/3	3	31	66	7.68	7.29	0.70	0.90		16.7		610	
9135	Bt	30-40	10YR 5/3	2	27	71	7.68	7.36	0.68	0.85		14.6		480	
9132	Ckg	55+	10YR 6/3	4	32	64	8.26	7.85	0.53	0.64		23.1		580	
9133	Ckg	55+	10YR 6/3	2	32	66	8.29	7.83	0.44	0.66		25.0		600	

SOIL PROFILE INFORMATION (cont'd.)

Site: Lorne C. Henderson Conservation Area

Classification: Orthic Gray Brown Luvisol

Sample No.	Horizon	Exchangeable Cations (ug/g)				C.E.C. (m.e.) 100g	Pyrophosphate (%)			Dithionite (%)			CaCO ₃ (%)	Metals (ug/g)			
		Ca	Mg	K	Al		Fe	Al	Mn	Fe	Al	Mn		Zn	Cu	Ni	Pb
9138	Ahp	2967	675	85		20.43	0.11	0.06	0.0099	1.2	0.18	0.074	1	79	34	27	18.0
9139	Ahp	3332	725	107		22.72	0.10	0.06	0.0089	1.2	0.17	0.074	1	82	36	28	19.0
9136	Btgj	2426	1046	85		20.64	0.09	0.01	0.0034	1.4	0.21	0.053	2	89	57	46	12.0
9137	Btgj	2606	1135	85		22.23	0.09	0.01	0.0024	1.4	0.21	0.045	1	81	44	44	11.0
9134	Bt	2471	1316	96		23.08	0.06	0.01	0.0024	1.4	0.21	0.043	2	93	61	56	11.0
9135	Bt	2606	1316	85		23.73	0.07	0.01	0.0031	1.4	0.22	0.043	2	110	88	63	12.0
9132	Ckg	2248		74		20.41	0.02	0.00	0.0021	1.1	0.15	0.044	12	85	59	51	10.0
9133	Ckg	2381	1135	110		21.14	0.01	0.00	0.0026	1.2	0.16	0.040	13	86	70	52	11.0

SOIL PROFILE INFORMATION

Horizon Depth

Site: Lorne C. Henderson Conservation Area

Date: 81/06/17

Ahp

0

Location Code: 1001019

Parent Material: lacustrine clay

UTM: 17T 403000.0 4747900.0

Vegetation: grass, hawthorn

Bt

20

Classification: Orthic Gray Brown Luvisol

40

Landform: clay plain

Comments: resurvey, some stones, mottle colour in Cgk (10YR 5/6) and (10YR 4/4).

Cgk

60

Slope: simple, class 1, level

Sample No.	Horizon	Depth (cm)	Colour	Sand (%)	Silt (%)	Clay (%)	pH (H ₂ O)	pH (CaCl ₂)	Organic C (%)	Total Nitrogen (mg/g)	Extr. S (ug/g)	Extr. SO ₄ (ug/g)	Avail. P (ug/g)	Total P (ug/g)	Avail. Al (ug/g)
17337	Ahp	0-20	10YR 3/2	24	44	32	6.4	5.9	3	2.0			3		0.080
17336	Ahp	0-20	10YR 3/2	22	44	33	6.4	5.9	3	2.2			3		0.096
17335	Ah/Bm	20-30	10YR 4/4	27	37	36	6.3	5.6	2	0.8			3		0.080
17334	Ah/Bm	20-30	10YR 5/2	18	46	36	6.2	5.5	1	1.1			3		0.096
17333	Bt	40	10YR 5/2	16	33	51	6.3	5.5	1	0.7			3		0.080
17332	Bt	40	10YR 5/2	25	29	46	6.4	5.5	1	0.7			3		0.080
17331	Cgk	60	10YR 5/2	17	41	42	8.0	7.5	1	0.5			8		0.080
17330	Cgk	60	10YR 5/2	33	29	38	7.8	7.4	1	0.5			3		0.080

SOIL PROFILE INFORMATION (cont'd.)

Site: Lorne C. Henderson Conservation Area

Classification: Orthic Gray Brown Luvisol

Sample No.	Horizon	Exchangeable Cations (ug/g)				C.E.C. (m.e.) 100g	Pyrophosphate (%)			Dithionite (%)			CaCO ₃ (%)	Metals (ug/g)			
		Ca	Mg	K	Al		Fe	Al	Mn	Fe	Al	Mn		Zn	Cu	Ni	Pb
17337	Ahp	1870	430	130		13.08							2				
17336	Ahp	1960	420	130		13.46							8				
17335	Ah/Bm	1430	350	73		10.10							1				
17334	Ah/Bm	1430	320	58		9.81							1				
17333	Bt	1360	510	96		11.14							1				
17332	Bt	1360	360	92		9.91							2				
17331	Cgk	2590	440	58		16.59							22				
17330	Cgk	1840	500	58		13.34							16				

SOIL PROFILE INFORMATION

Horizon Depth

Site: Pinery Provincial Park

Date: 80/06/05

Ahk 0

Location Code: 1001035

Parent Material: aeolian sand

UTM: 17T 478710.0 4291000.0

Vegetation: oak, pine, grass, ferns

Bk 15

Classification: Orthic Melanic Brunisol

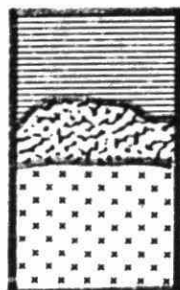
Ck 40

Landform: sand plain/beach

Comments: inland sand dunes

80

Slope: very gentle slopes



Sample No.	Horizon	Depth (cm)	Colour	Sand (%)	Silt (%)	Clay (%)	pH (H ₂ O)	pH (CaCl ₂)	Organic C (%)	Total Nitrogen (mg/g)	Extr. S (ug/g)	Extr. SO ₄ (ug/g)	Avail. P (ug/g)	Total P (ug/g)	Avail. Al (ug/g)
9146	Ahk	0-15	5YR 3/1	91	2	7	7.92	7.54	1.10	0.73		3.5		260	
9147	Ahk	0-15	5YR 3/1	90	3	6	8.08	7.41	1.13	1.02		3.7		310	
9144	Bk	15-25	10YR 4/3	88	2	10	8.20	7.80	0.47	0.44		3.1		250	
9145	Bk	15-25	10YR 4/3	91	1	8	7.99	7.69	0.47	0.36		2.5		240	
9142	Ck	40-60	2.5YR 6/2	91	1	8	8.34	7.73	0.09	0.23		0.6		140	
9143	Ck	40-60	2.5YR 6/2	91	1	7	8.16	7.77	0.07	0.18		1.9		210	
9140	Ck	80+	2.5YR 6/2	90	2	8	8.24	7.73	0.09	0.13		1.0		130	
9141	Ck	80+	2.5YR 6/2	91	2	7	8.24	7.57	0.05	0.15		0.8		150	

SOIL PROFILE INFORMATION (cont'd.)

Site: Pinery Provincial Park

Classification: Orthic Melanic Brunisol

Sample No.	Horizon	Exchangeable Cations (ug/g)				C.E.C. (m.e.) 100g	Pyrophosphate (%)			Dithionite (%)			CaCO ₃ (%)	Metals (ug/g)			
		Ca	Mg	K	Al		Fe	Al	Mn	Fe	Al	Mn		Zn	Cu	Ni	Pb
9146	Ahk	2070	150.0	32.0		11.60	0.01	0.01	0.0052	0.15	0.02	0.009	13	19.0	15	3.0	5.5
9147	Ahk	1849	123.0	32.0		10.29	0.01	0.00	0.0042	0.15	0.02	0.009	11	19.0	19	3.0	6.1
9144	Bk	727	43.0	11.0		3.98	0.01	0.02	0.0007	0.14	0.02	0.005	22	6.7	20	3.4	1.2
9145	Bk	662	28.0	11.0		3.54	0.01	0.02	0.0013	0.13	0.02	0.005	21	7.7	23	3.0	1.1
9142	Ck	296	11.0	5.2		1.57	0.01	0.00	0.0007	0.10	0.02	0.004	18	4.8	17	2.9	1.1
9143	Ck	317	8.5	5.2		1.65	0.01	0.00	0.0010	0.10	0.01	0.004	17	5.8	23	3.0	1.2
9140	Ck	232	8.5	5.2		1.23	0.01	0.01	0.0014	0.14	0.03	0.005	17	10.0	33	5.1	1.5
9141	Ck	232	8.5	5.2		1.23	0.01	0.00	0.0006	0.10	0.02	0.004	20	9.3	32	3.4	1.2

SOIL PROFILE INFORMATION

Horizon Depth

Site: Saugeen Bluffs Conservation Area

Date: 80/07/02

Ah 0

Location Code: 1001043

Parent Material: till

Bfj 20

UTM: 17T 476250.0 4906300.0

Vegetation: maple

40

Classification: Orthic Melanic Brunisol

Bm 60

Landform: till plain/moraine

Comments:

IC 80

Slope: simple, class 1, level

IICk 100



Sample No.	Horizon	Depth (cm)	Colour	Sand (%)	Silt (%)	Clay (%)	pH (H2O)	pH (CaCl2)	Organic C (%)	Total Nitrogen (mg/g)	Extr. S (ug/g)	Extr. SO4 (ug/g)	Avail. P (ug/g)	Total P (ug/g)	Avail. Al (ug/g)
9341	Ah	0-10	7.5YR 3/2	40	36	23	6.27	5.76	3.40	1.27		13.3		240	
9342	Ah	0-10	7.5YR 3/2	41	36	23	6.47	5.86	3.47	1.59		11.2		280	
9339	Bf	10-20	10YR 4/4	49	45	6	6.51	5.45	0.90	0.55		3.7		300	
9340	Bfj	10-20	10YR 4/4	46	43	11	6.94	5.95	1.10	0.60		4.0		310	
9337	Bm	50	7.5YR 4/4	45	39	16	6.66	5.75	0.45	0.29		6.1		350	
9338	Bm	50	7.5YR 4/4	49	43	8	6.97	5.19	0.49	0.32		4.9		230	
9335	IC	70	10YR 4/4	42	42	16	7.30	6.49	0.44	0.25		8.3		400	
9336	IC	70	10YR 4/4	44	35	21	7.22	6.42	0.61	0.27		8.7		480	
9333	IC	85	10YR 4/4	47	41	12	7.08	6.27	0.31	0.32		6.0		440	
9334	IICk	85	10YR 4/4	33	51	16	7.93	7.30	0.36	0.14		7.0		560	
9331	IICk	70-90	10YR 6/4	52	37	11	8.80	7.81	0.28	0.15		3.0		370	
9332	IICk	70-90	10YR 6/4	44	41	14	8.65	7.81	0.27	0.11		3.8		390	

SOIL PROFILE INFORMATION (cont'd.)

Site: Saugeen Bluffs Conservation Area

Classification: Orthic Melanic Brunisol

Sample No.	Horizon	Exchangeable Cations (ug/g)				C.E.C. (m.e.) 100g	Pyrophosphate (%)			Dithionite (%)			CaCO ₃ (%)	Metals (ug/g)			
		Ca	Mg	K	Al		Fe	Al	Mn	Fe	Al	Mn		Zn	Cu	Ni	Pb
9341	Ah	1245	282	124		8.85	0.32	0.20	0.0330	0.86	0.340	0.0530	2	52	16	10.0	8.0
9342	Ah	1196	277	140		8.53	0.34	0.21	0.0250	0.84	0.360	0.0460	2	53	12	8.8	8.6
9339	Bf	280	67	79	3.15	2.17	0.18	0.22	0.0110	0.71	0.370	0.0440	1	33	14	11.0	2.7
9340	Bfj	474	123	82		3.54	0.22	0.23	0.0110	0.71	0.350	0.0410	2	48	13	11.0	2.4
9337	Bm	303	77	42		2.22	0.12	0.13	0.0110	0.66	0.210	0.0550	2	27	11	11.0	2.9
9338	Bm	335	115	7	1.6	2.75	0.12	0.10	0.0093	0.59	0.160	0.0400	2	29	15	7.8	1.6
9335	IC	473	225	42		4.26	0.12	0.09	0.0062	0.90	0.220	0.0660	2	31	19	12.0	6.6
9336	IC	689	325	42		6.14	0.13	0.05	0.0042	1.20	0.220	0.0760	2	31	19	16.0	9.2
9333	IC	304	144	30		2.73	0.08	0.05	0.0040	0.65	0.140	0.0620	2	24	14	9.7	3.2
9334	ICk	764	345	38		6.66	0.05	0.02	0.0017	1.00	0.170	0.0670	19	34	19	14.0	3.3
9331	IICk	405	103	26		2.90	0.02	0.00	0.0019	0.37	0.055	0.0025	47	15	17	5.8	4.1
9332	IICk	371	108	26		2.77	0.01	0.00	0.0014	0.40	0.048	0.0027	49	15	15	4.4	1.2

SOIL PROFILE INFORMATION

Horizon

Depth

Site: MacGregor Point Provincial Park

Date: 80/07/02

Ah



0

Location Code: 1001044

Parent Material: sand

Ae

15

UTM: 17T 464100.0 4917900.0

Vegetation: oak, maple

Bmk

40

Classification: Eluviated Eutric Brunisol

Landform: sand plain/beach shoreline

Comments: rocks in Ck
no clay skins

Ck

60

Slope: nearly level

Sample No.	Horizon	Depth (cm)	Colour	Sand (%)	Silt (%)	Clay (%)	pH (H ₂ O)	pH (CaCl ₂)	Organic C (%)	Total Nitrogen (mg/g)	Extr. S (ug/g)	Extr. SO ₄ (ug/g)	Avail. P (ug/g)	Total P (ug/g)	Avail. Al (ug/g)
9352	Ah	0-10	5YR 2.5/1	82	2	16	6.56	5.75	4.11	0.66		12.4		50	
9353	Ahk	0-10	5YR 2.5/1	88	4	7	6.14	5.35	4.28	0.94		9.0		80	
9351	Ae	13	7.5YR 7/2	93	3	4	6.26	5.20	0.93	0.79		4.0		30	
9349	Bmk	20	5YR 4/4	86	3	11	7.65	6.91	1.48	0.31		4.7		120	
9350	Bm	20	5YR 4/4	88	4	8	6.96	6.13	1.24	0.32		4.5		170	
9347	Bmk	30	7.5YR 4/4	87	3	10	7.81	7.55	0.72	0.27		3.1		190	
9348	Bmk	30	7.5YR 4/4	88	2	10	8.06	7.38	0.73	0.27		3.3		160	
9345	Ck	45	10YR 5/4	89	4	7	7.86	7.53	0.33	0.19		1.4		150	
9346	Ck	45	10YR 5/4	86	3	10	8.00	7.43	0.31	0.13		2.0		150	
9343	Ck	60	10YR 6/4	88	3	8	7.80	7.48	0.31	0.13		2.3		240	
9344	Ck	60	10YR 6/4	76	5	18	8.56	7.66	0.25	0.13		1.8		160	

SOIL PROFILE INFORMATION (cont'd.)

Site: MacGregor Point Provincial Park

Classification: Eluviated Eutric Brunisol

Sample No.	Horizon	Exchangeable Cations (ug/g)				C.E.C. (m.e.) 100g	Pyrophosphate (%)			Dithionite (%)			CaCO ₃ (%)	Metals (ug/g)			
		Ca	Mg	K	Al		Fe	Al	Mn	Fe	Al	Mn		Zn	Cu	Ni	Pb
9352	Ah	1205	231	77		7.74	0.07	0.03	0.0044	0.25	0.074	0.005	2	37.0	5.8	30	8.6
9353	Ahk	1098	204	61	6	8.02	0.07	0.03	0.0035	0.27	0.810	0.005	7	32.0	6.8	44	10.0
9351	Ae	471	86	18	4	3.13	0.07	0.03	0.0015	0.28	0.060	0.003	1	19.0	9.5	55	2.3
9349	Bmk	960	248	28		6.84	0.12	0.10	0.0086	0.49	0.230	0.020	7	17.0	5.9	49	1.3
9350	Bm	764	128	25		4.90	0.11	0.10	0.0045	0.44	0.260	0.014	1	20.0	5.7	45	1.2
9347	Bmk	598	139	22		4.13	0.05	0.03	0.0048	0.25	0.045	0.010	25	9.0	3.7	34	3.1
9348	Bmk	544	107	19		3.62	0.05	0.03	0.0061	0.27	0.040	0.014	23	8.7	4.4	34	1.9
9345	Ck	271	53	19		1.81	0.03	0.01	0.0030	0.24	0.020	0.008	30	8.6	3.5	47	1.2
9346	Ck	287	67	19		2.01	0.04	0.01	0.0053	0.24	0.020	0.009	27	8.6	4.8	70	1.1
9343	Ck	238	38	23		1.53	0.02	0.01	0.0029	0.26	0.010	0.008	29	9.4	3.5	35	1.4
9344	Ck	271	38	23		1.70	0.03	0.01	0.0043	0.29	0.020	0.012	28	9.2	3.6	43	1.4

SOIL PROFILE INFORMATION

Horizon Depth

Site: MacGregor Point Provincial Park

Date: 81/06/30

Ahk 0

Location Code: 1001044

Parent Material: lacustrine sand

Ae 20

UTM: 17T 469100.0 4917900.0

Vegetation: oak, maple

Bmk 40

Classification: Eluviated Eutric Brunisol

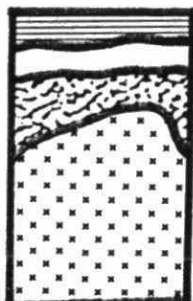
Ck 60

Landform: sand plain/beach

Comments: resurvey

80

Slope: nearly level



Sample No.	Horizon	Depth (cm)	Colour	Sand (%)	Silt (%)	Clay (%)	pH (H ₂ O)	pH (CaCl ₂)	Organic C (%)	Total Nitrogen (mg/g)	Extr. S (ug/g)	Extr. SO ₄ (ug/g)	Avail. P (ug/g)	Total P (ug/g)	Avail. Al (ug/g)
17404	Ahk	0-10	10YR 2/1	70	10	20	7.0	6.4	8	2.2			4		0.360
17416	Ahk	0-10	10YR 2/1				7.0	6.5	15	4.6			23		0.820
17414	Ae	10-13	10YR 7/1	88	3	9	6.3	5.3	3	0.5			3		0.900
17407	Bmk	13-20	7.5Y 3/4	90	1	8	6.2	5.5	10	0.8			3		0.270
17406	Bmk	13-20	7.5Y 3/4	90	1	9	6.8	6.2	13	0.6			3		0.140
17411	Bmk	20-30	10YR 4/6	89	2	9	8.0	7.4	2	0.6			3		0.080
17408	Bmk	20-30	10YR 4/6	89	2	9	7.9	7.3	2	0.4			3		0.080
17409	Ck	30-50	10YR 5/6	90	2	9	8.1	7.3	1	0.2			3		0.080
17405	Ck	30-50	10YR 5/6	89	3	8	8.2	7.4	1	0.2			3		0.080
17415	Ck ₂	60-80	10YR 5/3	90	2	9	8.5	7.6	1	0.1			3		0.110
17413	Ck ₂	60-80	10YR 5/3	90	2	8	8.3	7.6	1	0.1			3		0.096

SOIL PROFILE INFORMATION (cont'd.)

Site: MacGregor Point Provincial Park

Classification: Eluviated Eutric Brunisol

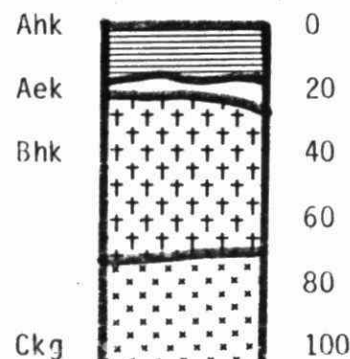
Sample No.	Horizon	Exchangeable Cations (ug/g)				C.E.C. (m.e.) 100g	Pyrophosphate (%)			Dithionite (%)			CaCO ₃ (%)	Metals (ug/g)			
		Ca	Mg	K	Al		Fe	Al	Mn	Fe	Al	Mn		Zn	Cu	Ni	Pb
17404	Ahk	2930	500	130		18.98							6				
17416	Ahk	4160	720	200		27.08							7				
17414	Ae	720	160	35		4.96							2				
17407	Bmk	430	110	20		3.06							11				
17406	Bmk	510	110	10		3.48							19				
17411	Bmk	340	70	4		2.30							57				
17408	Bmk	480	79	6		3.07							63				
17409	Ck	260	40	4		1.62							43				
17405	Ck	250	42	6		1.62							43				
17415	Ck ₂	250	28	4		1.50							55				
17413	Ck ₂	250	28	6		1.48							56				

SOIL PROFILE INFORMATION

Horizon Depth

Site: Aaron Lake Conservation Area

Date: 80/07/03



Location Code: 1001045

Parent Material: colluvian

UTM: 17T 479600.0 4927500.0

Vegetation: grass

Classification: Eluviated Melanic Brunisol

Landform: clay plain/till moraine

Comments: mottles in Ck (7.5YR 5/6)
organic C high due to erosion, not
podzolization

Slope: moderate slope

Sample No.	Horizon	Depth (cm)	Colour	Sand (%)	Silt (%)	Clay (%)	pH (H ₂ O)	pH (CaCl ₂)	Organic C (%)	Total Nitrogen (mg/g)	Extr. S (ug/g)	Extr. SO ₄ (ug/g)	Avail. P (ug/g)	Total P (ug/g)	Avail. Al (ug/g)
9362	Ahk	0-20	10YR 3/2	42	32	25	8.05	7.53	4.03	1.67		20.0		370	
9363	Ahk	0-20	10YR 3/2	43	33	24	8.00	7.57	4.39	1.63		22.0		460	
9360	Aek	20-23	10YR 7/4	43	36	21	8.15	7.5	3.05	1.29		18.0		340	
9361	Aek	20-23	10YR 7/4	38	36	26	8.01	7.46	3.18	1.80		17.0		430	
9358	Bhk	30	10YR 3/1	43	29	28	8.03	7.45	5.43	0.91		33.0		250	
9359	Bhk	30	10YR 3/1	41	30	28	7.82	7.31	4.91	2.46		26.0		520	
9356	Bhk	60	10YR 4/1	50	26	24	7.97	7.51	3.75	1.45		20.0		360	
9357	Bhk	60	10YR 4/1	47	29	24	7.91	7.48	4.69	0.18		26.0		430	
9354	Ckg	90	10YR 6/4	49	31	20	8.42	7.78	0.37	0.19		7.3		270	
9355	Ckg	90	10YR 6/4	41	40	19	8.48	7.76	0.49	0.19		9.1		270	

SOIL PROFILE INFORMATION (cont'd.)

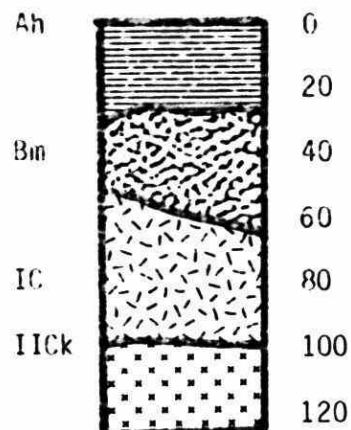
Site: Aaron Lake Conservation Area

Classification: Eluviated Melanic Brunisol

Sample No.	Horizon	Exchangeable Cations (ug/g)				C.E.C. (m.e.) 100g	Pyrophosphate (%)			Dithionite (%)			CaCO3 (%)	Zn	Metals (ug/g)			
		Ca	Mg	K	Al		Fe	Al	Mn	Fe	Al	Mn			Cu	Ni	Pb	
9362	Ahk	2790	294	28		16.36	0.10	0.04	0.0071	0.46	0.04	0.019	31	44	22	11.0	4.0	
9363	Ahk	2709	283	28		15.87	0.11	0.05	0.0083	0.51	0.05	0.020	31	36	21	10.0	4.6	
9360	Aek	2266	242	22		13.31	0.10	0.04	0.0080	0.36	0.05	0.017	31	35	22	11.0	4.3	
9361	Aek	2507	252	28		14.61	0.10	0.05	0.0097	0.42	0.04	0.018	26	33	17	11.0	2.8	
9358	Bhk	3203	363	36		18.99	0.15	0.08	0.0110	0.45	0.08	0.019	24	45	37	12.0	5.2	
9359	Bhk	2801	377	23		17.06	0.16	0.08	0.0150	0.45	0.08	0.024	23	38	21	11.0	4.1	
9356	Bhk	2541	295	30		15.13	0.12	0.07	0.0075	0.38	0.04	0.014	27	32	27	8.6	2.8	
9357	Bhk	2541	265	27		14.88	0.14	0.08	0.0076	0.41	0.05	0.014	25	29	25	9.4	2.5	
9354	Ckg	920	133	38		5.74	0.02	0.01	0.0033	0.39	0.03	0.026	41	24	17	13.0	2.6	
9355	Ckg	1021	144	34		6.33	0.04	0.02	0.0048	0.29	0.04	0.014	37	24	14	13.0	3.5	

SOIL PROFILE INFORMATION

Horizon Depth



Site: Pottawatomi and Jones Falls
Conservation Area

Location Code: 1001046

UTM: 17T 502200.0 4934300.0

Classification: Orthic Melanic Brunisol

Landform: shale plain/clay plain

Slope: gently sloping

Date: 80/07/03

Parent Material: lacustrine clay

Vegetation: grass

Comments: on river bank

Sample No.	Horizon	Depth (cm)	Colour	Sand (%)	Silt (%)	Clay (%)	pH (H ₂ O)	pH (CaCl ₂)	Organic C (%)	Total Nitrogen (mg/g)	Extr. S (ug/g)	Extr. SO ₄ (ug/g)	Avail. P (ug/g)	Total P (ug/g)	Avail. Al (ug/g)
9372	Ah	0-25	10YR2.5/1	55	20	25	6.95	6.30	2.73	0.86		7.0		280	
9373	Ah	0-25	10YR2.5/1	57	17	26	6.99	6.45	2.54	1.63		7.0		630	
9370	Bm	40	10YR 4/4	69	13	18	7.16	6.42	0.77	0.44		4.2		380	
9371	Bm	40	10YR 4/4	68	14	18	6.99	6.42	0.92	0.76		4.0		600	
9368	IC	60	10YR 5/6	69	14	17	7.34	6.53	1.24	0.67		3.5		350	
9369	IC	60	10YR 5/6	76	10	14	7.31	6.40	0.81	0.43		2.6		310	
9366	Ick	85	5YR 4/3	60	19	21	8.04	7.05	1.00	1.02		3.7		680	
9367	IC	85	5YR 4/3	68	13	20	7.53	6.85	0.97	0.72		3.6		690	
9364	IICk	120	2.5YR 5/2	8	53	39	8.33	7.72	0.48	2.15		6.6		570	
9365	IICk	120	2.5YR 5/2	6	56	38	8.50	7.82	0.39	0.35		8.1		440	

SOIL PROFILE INFORMATION (cont'd.)

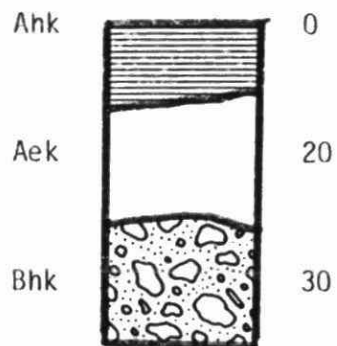
Site: Pottawatomi and Jones Falls Conservation Area

Classification: Orthic Melanic Brunisol

Sample No.	Horizon	Exchangeable Cations (ug/g)				C.E.C. (m.e.) 100g	Pyrophosphate (%)			Dithionite (%)			CaCO ₃ (%)	Metals (ug/g)			
		Ca	Mg	K	Al		Fe	Al	Mn	Fe	Al	Mn		Zn	Cu	Ni	Pb
9372	Ah	2386	294	51		14.39	0.09	0.07	0.0280	1.4	0.16	0.120	1	42	24	20	5.2
9373	Ah	2266	273	45		13.62	0.10	0.08	0.0300	1.6	0.18	0.150	2	48	23	32	5.1
9370	Bm	1034	194	23		6.76	0.11	0.04	0.0070	2.3	0.15	0.210	2	30	22	36	3.1
9371	Bm	1233	216	23		7.94	0.15	0.05	0.0190	2.1	0.13	0.210	2	39	32	28	6.4
9368	IC	1254	221	17		8.07	0.21	0.08	0.0110	1.2	0.14	0.048	1	31	37	17	4.7
9369	IC	876	157	14		5.66	0.15	0.05	0.0084	1.3	0.12	0.071	1	27	18	32	2.5
9366	ICk	1354	244	23		8.77	0.17	0.07	0.0130	2.3	0.16	0.180	7	39	32	25	11.0
9367	IC	1213	221	25		7.89	0.15	0.06	0.0150	2.0	0.13	0.180	2	37	32	21	6.8
9364	IICk	1766	273	51		11.12	0.02	0.01	0.0029	1.4	0.10	0.067	8	54	34	35	3.2
9365	IICk	1559	244	54		9.87	0.01	0.01	0.0024	1.4	0.09	0.047	20	55	40	33	1.8

SOIL PROFILE INFORMATION

Horizon Depth



Site: Shallow Lake City Park

Date: 80/07/03

Location Code: 1001047

Parent Material: Niagara Escarpment

UTM: 17T 493250.0 4939850.0

Vegetation: grass

Classification: Eluviated Melanic Brunisol

Landform: limestone plain

Comments: site was disturbed
evidence of previous dump at 30
cm. Near APIOS precipitation
collector.

Slope: level

Sample No.	Horizon	Depth (cm)	Colour	Sand (%)	Silt (%)	Clay (%)	pH (H ₂ O)	pH (CaCl ₂)	Organic C (%)	Total Nitrogen (mg/g)	Extr. S (ug/g)	Extr. SO ₄ (ug/g)	Avail. P (ug/g)	Total P (ug/g)	Avail. Al (ug/g)
9378	Ahk	0-15	10YR 3/2	47	28	25	8.05	7.51	2.01	1.04		8.5		420	
9379	Ahk	0-15	10YR 3/2	52	28	21	8.10	7.52	1.80	0.98		9.8		470	
9376	Aek	15-27	10YR 6/4	90	1	9	8.47	7.69	0.35	0.18		2.6		200	
9377	Aek	15-27	10YR 6/4	89	4	8	8.42	7.69	0.41	0.17		1.1		170	
9374	Bhk	27+	2.5Y 4/2	44	38	18	8.15	7.55	2.78	1.32		7.7		340	
9375	Bhk	27+	2.5Y 4/2	57	24	19	8.17	7.59	2.27	1.22		6.6		420	

SOIL PROFILE INFORMATION (cont'd.)

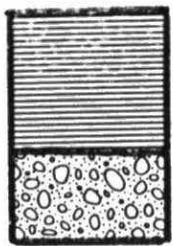
Site: Shallow Lake City Park

Classification: Eluviated Melanic Brunisol

Sample No.	Horizon	Exchangeable Cations (ug/g)				C.E.C. (m.e.) 100g	Pyrophosphate (%)			Dithionite (%)			CaCO ₃ (%)	Zn	Metals (ug/g)		
		Ca	Mg	K	Al		Fe	Al	Mn	Fe	Al	Mn			Cu	Ni	Pb
9378	Ahk	1988	252	74		12.13	0.07	0.05	0.0021	1.2	0.15	0.089	15	60	21.0	26	11.0
9379	Ahk	1831	192	79		11.87	0.06	0.04	0.0160	1.1	0.14	0.081	17	61	28.0	14	9.9
9376	Aek	508	33	14		2.83	0.04	0.03	0.0047	0.32	0.06	0.016	34	19	6.8	40	2.2
9377	Aek	489	28	14		2.69	0.04	0.04	0.0049	0.32	0.06	0.015	35	18	7.1	31	3.6
9374	Bhk	2425	157	80		13.55	0.06	0.04	0.0150	1.0	0.11	0.055	33	64	84.0	23	130.0
9375	Bhk	1862	131	63		10.50	0.05	0.04	0.0150	0.88	0.10	0.046	25	136	130.0	25	100.0

SOIL PROFILE INFORMATION

Horizon Ahk Depth 0 10



Site: Bruce's Caves Conservation Area
 Location Code: 1001048
 UTM: 17T 493850.0 4957600.0
 Classification: Orthic Humic Regosol
 Landform: limestone outcrops
 Slope: level

Date: 81/07/03
 Parent Material: Niagara Escarpment
 Vegetation: shrubs
 Comments: depth to bedrock 10 cm

Sample No.	Horizon	Depth (cm)	Colour	Sand (%)	Silt (%)	Clay (%)	pH (H ₂ O)	pH (CaCl ₂)	Organic C (%)	Total Nitrogen (mg/g)	Extr. S (ug/g)	Extr. SO ₄ (ug/g)	Avail. P (ug/g)	Total P (ug/g)	Avail. Al (ug/g)
9380	Ahk	0-10	10YR2.5/1	9	39	52	7.67	7.24	11.4	4.78		23		1100	
9381	Ahk	0-10	10YR2.5/1	18	34	48	7.50	7.11	11.3	5.16		21		1030	

SOIL PROFILE INFORMATION (cont'd.)

Site: Bruce's Caves Conservation Area

Classification: Orthic Humic Regosol

Sample No.	Horizon	Exchangeable Cations (ug/g)				C.E.C. (m.e.) 100g	Pyrophosphate (%)			Dithionite (%)			CaCO ₃ (%)	Metals (ug/g)			
		Ca	Mg	K	Al		Fe	Al	Mn	Fe	Al	Mn		Zn	Cu	Ni	Pb
9380	Ahk	5227	1133	126		33.41	0.24	0.24	0.11	2.2	0.32	0.20	6	120	39	12	46
9381	Ahk	5603	1133	120		37.29	0.30	0.26	0.14	2.3	0.38	0.21	6	120	41	11	44

SOIL PROFILE INFORMATION

Horizon Depth

Site: Sauble Falls Provincial Park

Date: 80/07/03

Ah



0

Location Code: 1001049

Parent Material: lacustrine (aeolian) sand

20

UTM: 17T 479800.0 4946550.0

Vegetation: maple, pine, ferns

Bm

40

Classification: Orthic Melanic Brunisol

Ck

80

Landform: sand plain/sand dunes

Comments:

100

Slope: nearly level

Sample No.	Horizon	Depth (cm)	Colour	Sand (%)	Silt (%)	Clay (%)	pH (H ₂ O)	pH (CaCl ₂)	Organic C (%)	Total Nitrogen (mg/g)	Extr. S (ug/g)	Extr. SO ₄ (ug/g)	Avail. P (ug/g)	Total P (ug/g)	Avail. Al (ug/g)
9388	Ah	0-20	10YR 3/3	91	0	9	7.86	7.07	1.28	0.48		4.0		290	
9389	Ah	0-20	10YR 3/3	88	0	12	7.76	6.98	1.25	0.47		5.3		200	
9386	Bm	40	7.5YR 5/6	97	0	4	7.73	7.05	0.64	0.17		2.1		150	
9387	Bm	40	7.5YR 5/6	95	0	5	7.81	6.99	0.67	0.31		2.1		410	
9384	Ck	70	10YR 6/6	91	0	8	8.43	7.80	0.16	0.13		5.2		100	
9385	Ck	70	10YR 6/6	90	6	4	8.45	7.77	0.16	0.13		2.6		160	
9382	Ck	90	10YR 6/4	91	0	9	8.38	7.83	2.29	0.14		4.9		140	
9383	Ck	90	10YR 6/4	90	0	9	8.79	7.85	0.09	0.12		0.5		90	

SOIL PROFILE INFORMATION (cont'd.)

Site: Sauble Falls Provincial Park

Classification: Orthic Melanic Brunisol

Sample No.	Horizon	Exchangeable Cations (ug/g)				C.E.C. (m.e.) 100g	Pyrophosphate (%)			Dithionite (%)			CaCO ₃ (%)	Metals (ug/g)			
		Ca	Mg	K	Al		Fe	Al	Mn	Fe	Al	Mn		Zn	Cu	Ni	Pb
9388	Ah	749	133	3		4.81	0.03	0.04	0.0094	0.37	0.090	0.024	1	19.0	4.4	47	2.3
9389	Ah	825	142	6		5.26	0.03	0.03	0.0095	0.36	0.080	0.024	0	19.0	3.1	24	4.1
9386	Bm	356	76	6		2.38	0.04	0.08	0.0048	0.28	0.120	0.014	2	13.0	15.0	64	1.1
9387	Bm	470	66	3		2.87	0.05	0.08	0.0058	0.33	0.130	0.020	1	11.0	3.2	68	1.3
9384	Ck	242	33	3		1.47	0.01	0.01	0.0048	0.19	0.020	0.013	33	7.1	3.2	51	1.1
9385	Ck	242	23	3		1.39	0.02	0.01	0.0050	0.19	0.030	0.013	34	8.8	8.3	49	1.2
9382	Ck	186	19	6		1.07	0.02	0.01	0.0041	0.20	0.021	0.011	36	7.2	4.2	56	1.4
9383	Ck	168	14	3		0.94	0.01	0.00	0.0025	0.19	0.012	0.006	39	6.1	3.3	53	1.3

SOIL PROFILE INFORMATION

Horizon	Depth	Site: Chesney Conservation Area	Date: 80/07/08
Ah	0	Location Code: 1001050	Parent Material: glacial till
	20	UTM: 17T 536500.0 4785650.0	Vegetation: grasses, clover, maple
Bm	40	Classification: Orthic Melanic Brunisol	
IC	60	Landform: kame moraine	Comments: stone layer in Ah
IICk	80	Slope: moderate slopes	very stoney in IIC



Sample No.	Horizon	Depth (cm)	Colour	Sand (%)	Silt (%)	Clay (%)	pH (H ₂ O)	pH (CaCl ₂)	Organic C (%)	Total Nitrogen (mg/g)	Extr. S (ug/g)	Extr. SO ₄ (ug/g)	Avail. P (ug/g)	Total P (ug/g)	Avail. Al (ug/g)
9398	Ah	0-10	10YR 3/3	62	17	20	7.74	7.14	2.34	1.26		7.9		300.00	
9399	Ah	0-10	10YR 3/3	61	18	21	7.66	7.14	2.14	2.04		8.6		430.00	
9396	Ah	30	10YR 4/4	58	25	17	7.80	7.36	1.32	0.56		6.5		220.00	
9397	Ah	30	10YR 4/4	53	28	19	7.88	7.36	1.44	0.88		5.9		270.00	
9394	Bm	45	10YR 6/4	65	25	10	7.92	7.29	0.56	0.23		5.6		110.00	
9395	Bm	45	10YR 6/4	66	25	9	7.81	7.26	0.52	0.27		5.7		110.00	
9392	IC	60	10YR 5/4	65	24	11	7.79	7.34	0.13	0.11		4.2		140.00	
9393	IC	60	10YR 5/4	66	24	10	7.83	7.26	0.27	0.22		4.7		130.00	
9390	IIC	80	5YR 4/6	59	12	28	7.98	7.54	0.40	0.33		5.9		380.00	
9391	IICk	80	5YR 4/6	72	10	18	8.27	7.68	0.36	0.22		7.7		420.00	

SOIL PROFILE INFORMATION (cont'd.)

Site: Chesney Conservation Area

Classification: Orthic Melanic Brunisol

Sample No.	Horizon	Exchangeable Cations (ug/g)				C.E.C. (m.e.) 100g	Pyrophosphate (%)			Dithionite (%)			CaCO ₃ (%)	Metals (ug/g)			
		Ca	Mg	K	Al		Fe	Al	Mn	Fe	Al	Mn		Zn	Cu	Ni	Pb
9398	Ah	1557	294	120		10.41	0.07	0.04	0.0160	0.76	0.10	0.023	1	53	18	9.8	12.0
9399	Ah	1635	314	120		10.97	0.06	0.04	0.0170	0.74	0.10	0.024	1	54	18	9.3	13.0
9396	Ah	1362	172	22		8.23	0.09	0.05	0.0100	0.78	0.11	0.025	2	46	22	9.2	6.9
9397	Ah	1479	212	28		9.15	0.08	0.05	0.0130	0.74	0.10	0.024	2	49	17	9.5	9.3
9394	Bm	662	71	11		3.88	0.10	0.07	0.0021	0.60	0.10	0.008	1	33	17	7.8	5.2
9395	Bm	643	76	11		3.83	0.12	0.08	0.0016	0.70	0.11	0.006	1	35	16	7.9	5.0
9392	IC	527	76	8		3.25	0.04	0.02	0.0021	0.57	0.06	0.015	2	27	15	7.1	3.4
9393	IC	527	66	11		3.18	0.05	0.03	0.0030	0.52	0.06	0.014	2	28	14	7.5	4.1
9390	IIC	1641	297	20		10.61	0.03	0.02	0.0028	1.6	0.20	0.043	2	61	25	16.0	10.0
9391	IICk	1415	239	17		9.01	0.05	0.03	0.0034	1.4	0.16	0.041	8	61	29	16.0	9.7

SOIL PROFILE INFORMATION

Horizon Depth

Site: Pittock Conservation Area

Date: 80/07/08

Ah 0

Location Code: 1001051

Parent Material: till

Bm₁ 20

UTM: 17T 520000.0 4778000.0

Vegetation: maple, oak

Bm₂ 40

Classification: Orthic Melanic Brunisol

C 60

Landform: till plain

Comments: large boulder in Bm₂
organic mottles in Bm₁
hematitic rock at 40 cm

Slope: level

Sample No.	Horizon	Depth (cm)	Colour	Sand (%)	Silt (%)	Clay (%)	pH (H ₂ O)	pH (CaCl ₂)	Organic C (%)	Total Nitrogen (mg/g)	Extr. S (ug/g)	Extr. SO ₄ (ug/g)	Avail. P (ug/g)	Total P (ug/g)	Avail. Al (ug/g)
9408	Ah	0-18	5YR 2.5/2	57	18	25	7.58	7.03	3.68	2.55		13.0		620	
9409	Ah	0-18	5YR 2.5/2	54	25	21	7.51	6.95	3.52	2.52		13.0		710	
9406	Bm ₁	25	7.5YR 4/4	67	21	11	7.56	6.76	0.78	0.58		3.7		370	
9407	Bm ₁	25	7.5YR 4/4	67	22	11	7.47	6.68	0.88	0.47		3.5		270	
9404	Bm ₁	35	7.5YR 4/4	69	23	7	7.60	6.79	0.36	0.22		2.5		240	
9405	Bm ₁	35	7.5YR 4/4	70	21	9	7.46	6.69	0.61	0.31		3.6		250	
9402	Bm ₂	45	5YR 3/4	51	16	33	7.70	6.99	0.48	0.34		4.3		360	
9403	Bm ₂	45	5YR 3/4	46	27	28	7.85	7.20	0.52	0.34		5.2		440	
9400	C	55	10YR 4/3	57	29	14	7.66	6.67	0.12	0.14		1.8		320	
9401	C	55	10YR 4/3	56	26	17	7.53	6.73	0.20	0.12		3.1		240	

SOIL PROFILE INFORMATION (cont'd.)

Site: Pittock Conservation Area

Classification: Orthic Melanic Brunisol

Sample No.	Horizon	Exchangeable Cations (ug/g)				C.E.C. (m.e.) 100g	Pyrophosphate (%)			Dithionite (%)			CaCO ₃ (%)	Metals (ug/g)			
		Ca	Mg	K	Al		Fe	Al	Mn	Fe	Al	Mn		Zn	Cu	Ni	Pb
9408	Ah	2547	346	62		15.64	0.13	0.06	0.0610	0.56	0.10	0.081	1	60	21	8.0	20.0
9409	Ah	2588	357	56		15.92	0.13	0.07	0.0700	0.50	0.09	0.076	1	57	13	6.3	20.0
9406	Bm ₁	837	126	14		5.21	0.16	0.09	0.0080	0.61	0.15	0.032	2	49	18	8.2	5.0
9407	Bm ₁	876	126	17		5.42	0.23	0.12	0.0140	0.62	0.15	0.091	0	50	16	6.9	5.0
9404	Bm ₁	546	96	14		3.52	0.06	0.04	0.0034	0.44	0.09	0.024	1	37	13	8.3	5.4
9405	Bm ₁	662	106	14		4.17	0.13	0.09	0.0080	0.45	0.10	0.025	2	40	11	8.1	4.8
9402	Bm ₂	1054	267	17		7.43	0.12	0.07	0.0099	0.96	0.13	0.054	1	56	21	16.0	8.9
9403	Bm ₂	1456	377	23		10.34	0.13	0.07	0.0115	1.10	0.14	0.058	3	72	39	18.0	11.0
9400	C	556	147	18		3.99	0.08	0.04	0.0040	0.67	0.08	0.047	1	40	15	12.0	9.6
9401	C	778	189	14		5.43	0.06	0.03	0.0029	0.71	0.08	0.043	0	37	17	11.0	6.9

SOIL PROFILE INFORMATION

Horizon	Depth	Site: Wildwood Conservation Area	Date: 80/07/08
Ah	0	Location Code: 1001052	Parent Material: fluvial silt
	20	UTM: 17T 494900.0 4790450.0	Vegetation: pine
	40	Classification: Orthic Humic Regosol	
	60	Landform: fluvial deposit	Comments: depth to watertable 75 cm
C	80	Slope: level	in flood plain

Sample No.	Horizon	Depth (cm)	Colour	Sand (%)	Silt (%)	Clay (%)	pH (H ₂ O)	pH (CaCl ₂)	Organic C (%)	Total Nitrogen (mg/g)	Extr. S (ug/g)	Extr. SO ₄ (ug/g)	Avail. P (ug/g)	Total P (ug/g)	Avail. Al (ug/g)
9416	Ah	0-15	10YR2.5/1	21	49	30	7.57	7.12	3.40	2.08		12.0		670	
9417	Ah	0-15	10YR2.5/1	30	39	31	7.38	6.95	4.16	2.00		14.0		590	
9414	Ah ₂	30	10YR2.5/1	24	48	27	7.91	7.62	2.15	1.18		9.9		450	
9415	Ah ₂	30	10YR2.5/1	22	51	27	7.97	7.56	2.38	1.21		13.0		470	
9412	Ah ₃	50	10YR2.5/1	12	53	35	8.05	7.57	3.51	2.64		17.0		1080	
9413	Ah ₃	50	10YR2.5/1	12	47	41	7.95	7.48	3.87	3.37		16.0		1470	
9410	C	70	10YR 5/4	9	60	30	7.91	7.47	0.57	0.61		8.0		680	
9411	C	70	10YR 5/4	9	58	33	7.95	7.46	0.64	0.52		10.0		620	

SOIL PROFILE INFORMATION (cont'd.)

Site: Wildwood Conservation Area

Classification: Orthic Humic Regosol

Sample No.	Horizon	Exchangeable Cations (ug/g)				C.E.C. (m.e.) 100g	Pyrophosphate (%)			Di thionite (%)			CaCO ₃ (%)	Metals (ug/g)			
		Ca	Mg	K	Al		Fe	Al	Mn	Fe	Al	Mn		Zn	Cu	Ni	Pb
9416	Ah	3241	202	45		18.74	0.10	0.06	0.0290	0.96	0.13	0.077	1	77	26	19	22
9417	Ah	3448	336	51		20.04	0.09	0.06	0.0390	0.99	0.13	0.079	1	77	19	18	24
9414	Ah ₂	2994	222	40		16.83	0.08	0.07	0.0160	0.95	0.14	0.082	2	66	23	18	12
9415	Ah ₂	3117	232	34		17.51	0.08	0.06	0.0220	1.00	0.14	0.092	3	66	23	18	13
9412	Ah ₃	4850	294	34		26.62	0.12	0.17	0.0150	0.99	0.17	0.070	1	84	51	20	11
9413	Ah ₃	4850	314	40		26.80	0.12	0.20	0.0170	0.95	0.16	0.067	3	83	44	19	13
9410	C	2425	205	45		13.85	0.07	0.04	0.0029	1.10	0.15	0.086	1	79	34	25	11
9411	C	2425	210	48		13.90	0.06	0.04	0.0038	1.10	0.16	0.097	1	80	36	25	11

SOIL PROFILE INFORMATION

Horizon Depth

Site: Fanshaw Conservation Area

Date: 80/07/08

Ahk 0

Location Code: 1001053

Parent Material: glacial/fluviail silt

Ae

UTM: 17T 486500.0 4766750.0

Vegetation: grasses, clover

Bm 40

Classification: Eluviated Melanic Brunisol

60

80

Landform: spillway

Comments:

Ck 100

Slope: moderate slope

Sample No.	Horizon	Depth (cm)	Colour	Sand (%)	Silt (%)	Clay (%)	pH (H ₂ O)	pH (CaCl ₂)	Organic C (%)	Total Nitrogen (mg/g)	Extr. S (ug/g)	Extr. SO ₄ (ug/g)	Avail. P (ug/g)	Total P (ug/g)	Avail. Al (ug/g)
9426	Ahk	0-30	5YR 3/1	24	48	28	8.09	7.57	4.02	2.09		13.0		250	
9427	Ahk	0-30	5YR 3/1	23	46	30	8.06	7.62	2.43	1.88		14.0		470	
9424	Ae	40	5YR 5/1	25	49	26	7.97	7.46	2.54	1.63		12.0		530	
9425	Ae	40	5YR 5/1	24	52	24	7.97	7.42	2.86	1.10		11.0		210	
9422	Bm	65	10YR 6/4	28	49	23	7.91	7.31	0.84	0.50		5.1		300	
9423	Bm	65	10YR 6/4	30	48	22	7.87	7.28	0.80	0.47		4.3		250	
9420	C	80	7.5YR 4/4	35	35	30	8.03	7.47	0.43	0.45		3.0		600	
9421	C	80	7.5YR 4/4	32	38	30	7.87	7.44	0.47	0.42		4.8		560	
9418	Ck	95	10YR 4/3	29	37	34	8.36	7.80	0.45	0.32		3.0		480	
9419	C	95	10YR 4/3	29	38	33	8.27	7.76	0.31	0.35		4.0		130	

SOIL PROFILE INFORMATION (cont'd.)

Site: Fanshaw Conservation Area

Classification: Eluviated Melanic Brunisol

Sample No.	Horizon	Exchangeable Cations (ug/g)				C.E.C. (m.e.) 100g	Pyrophosphate (%)			Dithionite (%)			CaCO ₃ (%)	Zn	Metals (ug/g)			
		Ca	Mg	K	Al		Fe	Al	Mn	Fe	Al	Mn			Cu	Ni	Pb	
9426	Ahk	3303	162	166		18.21	0.10	0.05	0.0270	0.94	0.13	0.071	5	89	41	17	38.0	
9427	Ahk	2872	152	219		16.10	0.08	0.04	0.0230	0.89	0.12	0.065	6	85	27	16	38.0	
9424	Ae	2831	123	34		15.21	0.10	0.07	0.0180	0.80	0.12	0.078	3	67	19	14	15.0	
9425	Ae	2588	113	34		13.91	0.11	0.07	0.0150	0.85	0.13	0.075	2	70	22	14	15.0	
9422	Bm	1620	106	20		8.98	0.11	0.06	0.0082	0.84	0.12	0.056	2	60	16	15	12.0	
9423	Bm	1662	111	17		9.22	0.12	0.06	0.0079	0.85	0.12	0.055	2	63	22	18	14.0	
9420	C	1828	136	28		10.30	0.06	0.02	0.0023	1.10	0.14	0.058	2	65	26	23	12.0	
9421	C	1870	146	31		10.59	0.05	0.02	0.0023	1.00	0.13	0.056	2	62	30	25	13.0	
9418	Ck	1849	136	25		10.39	0.03	0.01	0.0032	0.94	0.11	0.056	7	57	30	25	13.0	
9419	C	1862	142	28		10.50	0.04	0.01	0.0019	1.10	0.12	0.064	0	59	28	27	9.1	

SOIL PROFILE INFORMATION

Horizon Depth

Site: Coldstream Conservation Area

Date: 80/07/09

Ah 0

Location Code: 1001054

Parent Material: glacial till

Ae 20

UTM: 17T 459500.0 4763100.0

Vegetation: grass, maple

Btk 40

Classification: Orthic Gray Brown Luvisol

Ck 60

Landform: moraine

Comments: very stoney at 30 cm+

Slope: gently sloping



Sample No.	Horizon	Depth (cm)	Colour	Sand (%)	Silt (%)	Clay (%)	pH (H ₂ O)	pH (CaCl ₂)	Organic C (%)	Total Nitrogen (mg/g)	Extr. S (ug/g)	Extr. SO ₄ (ug/g)	Avail. P (ug/g)	Total P (ug/g)	Avail. Al (ug/g)
9434	Ah	0-15	10YR 5/1	62	20	18	7.94	7.42	2.73	2.61		5.7		340	
9435	Ah	0-15	10YR 5/1	58	21	21	7.86	7.45	3.19	2.45		7.9		350	
9432	Ae	25	10YR 7/3	66	19	16	7.99	7.36	0.80	0.56		4.7		190	
9433	Ae	25	10YR 7/3	95	0	5	7.86	7.43	0.92	0.52		3.1		180	
9430	Btk	40	5YR 3/4	55	22	23	7.98	7.68	1.09	0.44		6.2		300	
9431	Btk	40	5YR 3/4	70	14	16	8.21	7.72	0.74	0.36		2.1		230	
9428	Ck	55	10YR 5/9	81	9	11	8.67	7.87	0.33	0.20		0.5		190	
9429	Ck	55	10YR 5/4	77	11	12	8.54	7.92	0.61	0.37		2.2		210	

SOIL PROFILE INFORMATION (cont'd.)

Site: Coldstream Conservation Area

Classification: Orthic Gray Brown Luvisol

Sample No.	Horizon	Exchangeable Cations (ug/g)				C.E.C. (m.e.) 100g	Pyrophosphate (%)			Dithionite (%)			CaCO ₃ (%)	Metals (ug/g)			
		Ca	Mg	K	Al		Fe	Al	Mn	Fe	Al	Mn		Zn	Cu	Ni	Pb
9434	Ah	2507	104	22		13.40	0.11	0.06	0.0140	0.78	0.12	0.038	2	63	16	11	15.0
9435	Ah	2668	123	28		14.39	0.10	0.06	0.0180	0.73	0.11	0.042	3	69	18	12	18.0
9432	Ae	1362	47	6		7.19	0.11	0.04	0.0064	1.00	0.14	0.034	2	53	15	14	11.0
9433	Ae	1285	37	6		6.72	0.10	0.04	0.0054	0.79	0.11	0.028	2	53	17	14	9.5
9430	Btk	3179	86	23		16.53	0.01	0.01	0.0017	1.60	0.25	0.054	19	86	29	31	14.0
9431	Btk	1891	52	14		9.89	0.03	0.03	0.0029	0.95	0.13	0.036	43	62	38	46	10.0
9428	Ck	837	23	8		4.38	0.01	0.01	0.0013	0.34	0.04	0.015	68	35	20	30	6.0
9429	Ck	856	23	8		4.48	0.07	0.04	0.0050	0.43	0.05	0.019	64	39	21	19	6.1

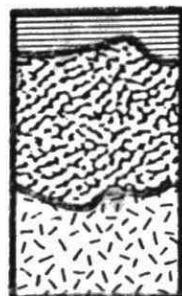
SOIL PROFILE INFORMATION

Horizon Depth

Site: Longwoods Road Conservation Area

Date: 80/07/09

Ah



0

Location Code: 1001055

Parent Material: deltaic sand

20

UTM: 17T 460950.0 4747500.0

Vegetation: beech, elm, oak

Bm

40

Classification: Orthic Sombric Brunisol

60

80

Landform: sand plain

Comments: compact red layer at 72 cm.
placic

C

100

Slope: very gentle slope

Sample No.	Horizon	Depth (cm)	Colour	Sand (%)	Silt (%)	Clay (%)	pH (H ₂ O)	pH (CaCl ₂)	Organic C (%)	Total Nitrogen (mg/g)	Extr. S (ug/g)	Extr. SO ₄ (ug/g)	Avail. P (ug/g)	Total P (ug/g)	Avail. Al (ug/g)
9445	Ah	0-11	5YR 2.5/2	74	6	20	6.32	5.57	3.25	1.61		15.0		280	
9446	Ah	0-11	5YR 2.5/2	25	23	52	6.20	5.53	5.20	2.17		16.0		390	
9443	Bm	30	10YR 5/8	78	8	14	6.23	5.00	0.27	0.29		3.6		280	
9444	Bm	30	10YR 5/8	78	9	13	6.42	5.38	0.32	0.33		3.3		510	
9441	Bm	50	10YR 5/8	85	6	9	6.72	5.44	0.20	0.22		3.8		380	
9442	Bm	50	10YR 5/8	83	8	8	6.33	5.12	0.21	0.21		5.4		260	
9439	C	70	10YR 5/4	87	1	12	6.74	5.47	0.07	0.11		2.1		380	
9440	C	70	10YR 5/4	88	6	6	6.39	5.34	0.01	0.16		4.8		470	
9438	Red Layer	72	7.5YR 4/4	65	20	15	6.62	5.52	0.11	0.22		4.0		690	
9436	C	90	10YR 5/4	92	4	5	7.17	5.65	0.07	0.12		1.2		360	
9437	C	90	10YR 5/4	87	6	6	7.12	5.68	0.03	0.11		0.7		420	

SOIL PROFILE INFORMATION (cont'd.)

Site: Longwoods Road Conservation Area

Classification: Orthic Sombric Brunisol

Sample No.	Horizon	Exchangeable Cations (ug/g)				C.E.C. (m.e.) 100g	Pyrophosphate (%)			Di thionite (%)			CaCO ₃ (%)	Metals (ug/g)			
		Ca	Mg	K	Al		Fe	Al	Mn	Fe	Al	Mn		Zn	Cu	Ni	Pb
9445	Ah	1596	162	51		9.38	0.10	0.04	0.0340	0.43	0.10	0.081	2	70	10.0	4.4	23.0
9446	Ah	2147	232	56		12.72	0.13	0.05	0.0520	0.43	0.09	0.06	2	77	10.0	4.5	36.0
9443	Bm	215	37	18	5.35	1.47	0.13	0.09	0.0048	0.50	0.12	0.020	0	49	5.8	4.5	3.9
9444	Bm	336	33	21	2.45	2.03	0.12	0.08	0.0081	0.49	0.11	0.030	2	39	8.0	5.2	3.9
9441	Bm	194	26	34	1.50	1.16	0.10	0.08	0.0045	0.47	0.12	0.022	2	39	9.9	67.0	4.6
9442	Bm	194	47	30	2.95	1.49	0.10	0.07	0.0026	0.57	0.12	0.014	2	55	7.9	45.0	4.5
9439	C	88	14	14	0.95	0.65	0.05	0.04	0.0029	0.30	0.07	0.022	2	29	42.0	4.9	5.5
9440	C	123	24	14	0.65	0.85	0.08	0.06	0.0026	0.31	0.07	0.022	2	32	8.3	5.5	4.7
9438	Red Layer	186	28	17		1.19	0.11	0.07	0.0051	0.45	0.11	0.033	3	34	6.9	6.1	5.3
9436	C	74	14	8		0.50	0.04	0.04	0.0033	0.34	0.07	0.028	2	24	8.5	72.0	5.6
9437	C	111	9	8		0.64	0.03	0.03	0.0023	0.30	0.06	0.027	2	25	14.0	79.0	4.7

SOIL PROFILE INFORMATION

Horizon Depth

Site: Longwoods Road Conservation Area

Date: 81/06/17

Location Code: 1001055

Parent Material: deltaic sand

UTM: 17T 460950.0 4747500.0

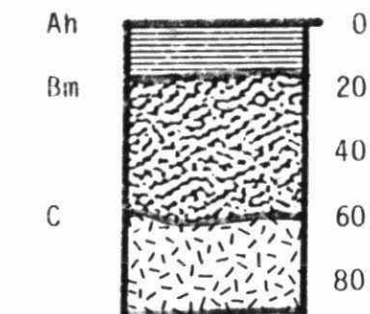
Vegetation: elm, oak, beech

Classification: Orthic Sombric Brunisol

Landform: sand plain

Comments: resurvey

Slope: very gentle slope



Sample No.	Horizon	Depth (cm)	Colour	Sand (%)	Silt (%)	Clay (%)	pH (H ₂ O)	pH (CaCl ₂)	Organic C (%)	Total Nitrogen (mg/g)	Extr. S (ug/g)	Extr. SO ₄ (ug/g)	Avail. P (ug/g)	Total P (ug/g)	Avail. Al (ug/g)
17353	Ah	0-15	10YR 2/1	72	15	12	6.1	5.7	5	6.2			30		0.660
17352	Ah	0-15	10YR 2/1				6.0	5.7	5	8.9					0.740
17351	Bm	30	10YR 4/4	80	12	9	5.6	4.9	1	0.2			6		0.570
17350	Bm	30	10YR 4/4	82	10	7	5.5	4.8	1	0.3			5		0.780
17349	Bm	50	10YR 4/4	81	11	8	5.5	4.9	1	1.9			7		0.110
17348	Bm	50	10YR 4/4	81	11	8	5.6	4.8	1	0.2			3		0.250
17347	C	60	10YR 5/4	80	12	8	5.6	4.9	1	0.1			3		0.160
17346	C	60	10YR 5/4	80	11	8	5.6	4.8	1	0.2			3		0.170
17345	C	60-95	10YR 5/4	84	11	5	5.5	4.8	1	0.2			3		0.320
17344	C	60-95	10YR 5/4	84	10	5	5.6	4.9	1	0.3			3		0.080

SOIL PROFILE INFORMATION (cont'd.)

Site: Longwoods Road Conservation Area

Classification: Orthic Sombric Brunisol

Sample No.	Horizon	Exchangeable Cations (ug/g)				C.E.C. (m.e.) 100g	Pyrophosphate (%)			Dithionite (%)			CaCO ₃ (%)	Zn	Metals (ug/g)		
		Ca	Mg	K	Al		Fe	Al	Mn	Fe	Al	Mn			Cu	Ni	Pb
17353	Ah	3840	350	230		22.57							1				
17352	Ah	4110	420	290		24.62							1				
17351	Bm	210	34	12	2	1.39											
17350	Bm	190	39	8	9	1.38											
17349	Bm	240	46	16	0	1.63											
17348	Bm	230	48	24	2	1.64											
17347	C	250	53	24	0	1.76											
17346	C	250	46	24	0	1.70											
17345	C	230	48	24	0	1.62											
17344	C	260	46	24	3	1.78											

SOIL PROFILE INFORMATION

Horizon Depth

Site: Dalewood Conservation Area

Date: 80/07/09

Ah 0

Location Code: 1001056

Parent Material: lacustrine clay

Ae 20

UTM: 17T 485550.0 4739000.0

Vegetation: beech, maple, leeks

Bt 40

Classification: Orthic Gray Brown Luvisol

C 60

Landform: clay plain

Comments:

Slope: very gentle slope



Sample No.	Horizon	Depth (cm)	Colour	Sand (%)	Silt (%)	Clay (%)	pH (H ₂ O)	pH (CaCl ₂)	Organic C (%)	Total Nitrogen (mg/g)	Extr. S (ug/g)	Extr. SO ₄ (ug/g)	Avail. P (ug/g)	Total P (ug/g)	Avail. Al (ug/g)
9453	Ah	0-20	10YR2.5/1	17	49	33	6.78	6.29	5.08	3.10		12.0		600	
9454	Ah	0-20	10YR2.5/1	19	48	33	6.86	6.38	5.48	3.78		9.2		700	
9451	Ae	20-23	10YR 5/3	17	41	43	6.52	5.98	1.16	0.60		6.5		300	
9452	Ae	20-23	10YR 5/3	17	51	32	6.72	6.00	1.46	0.86		5.4		310	
9449	Bt	25	10YR 4/4	11	34	55	7.28	6.96	0.86	0.82		4.8		500	
9450	Bt	25	10YR 4/4	11	36	53	7.78	7.35	0.61	0.48		6.0		420	
9447	Ck	40	10YR 4/3	13	37	51	8.18	7.75	0.73	0.40		5.0		340	
9448	Ck	40	10YR 4/3	8	38	54	8.33	7.84	0.48	0.34		4.4		460	

SOIL PROFILE INFORMATION (cont'd.)

Site: Dalewood Conservation Area

Classification: Orthic Gray Brown Luvisol

Sample No.	Horizon	Exchangeable Cations (ug/g)				C.E.C. (m.e.) 100g	Pyrophosphate (%)			Dithionite (%)			CaCO ₃ (%)	Metals (ug/g)			
		Ca	Mg	K	Al		Fe	Al	Mn	Fe	Al	Mn		Zn	Cu	Ni	Pb
9453	Ah	3513	364	111		20.70	0.18	0.06	0.0160	0.89	0.14	0.037	2	82	27	13.0	19.0
9454	Ah	3513	349	105		20.55	0.17	0.05	0.0140	0.86	0.14	0.037	2	80	24	12.0	18.0
9451	Ae	2547	252	51		14.86	0.17	0.05	0.0041	1.50	0.19	0.041	2	83	44	28.0	10.0
9452	Ae	1910	182	40		11.08	0.22	0.07	0.0040	1.10	0.16	0.028	2	68	23	18.0	9.6
9449	Bt	3200	262	62		18.24	0.09	0.02	0.0055	1.60	0.17	0.063	3	86	55	36.0	10.0
9450	Bt	3573	232	68		19.87	0.10	0.02	0.0047	1.60	0.18	0.061	3	87	48	36.0	11.0
9447	Ck	2790	152	56		15.30	0.03	0.01	0.0042	1.20	0.13	0.057	17	77	42	4.5	36.0
9448	Ck	2851	182	56		15.85	0.02	0.01	0.0033	1.10	0.11	0.053	16	74	43	31.0	8.1

SOIL PROFILE INFORMATION

Horizon Depth

Site: Dalewood Conservation Area

Date: 81/06/17

Ah

0

Location Code: 1001056

Parent Material: lacustrine clay

UTM: 17T 485550.0 4739000.0

Vegetation: beech, maple

Bt

20

Classification: Orthic Gray Brown Luvisol

40

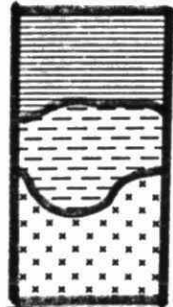
Landform: clay plain

Comments: resurvey

Ck

60

Slope: very gentle slopes



Sample No.	Horizon	Depth (cm)	Colour	Sand (%)	Silt (%)	Clay (%)	pH (H ₂ O)	pH (CaCl ₂)	Organic C (%)	Total Nitrogen (mg/g)	Extr. S (ug/g)	Extr. SO ₄ (ug/g)	Avail. P (ug/g)	Total P (ug/g)	Avail. Al (ug/g)
17373	Ah	0-20	10YR 3/1	18	46	36	7.3	7.2	6	4.4			21		0.080
17372	Ahk	0-20	10YR 3/1	17	47	35	7.3	6.9	6	4.1			28		0.080
17371	Bt	25	10YR 4/4	15	42	43	6.8	5.9	1	1.0			3		0.080
17370	Bt	25	10YR 4/4	14	28	58	6.9	6.1	1	0.8			3		0.080
17369	Ck	30-50	10YR 4/3	16	26	58	8.0	7.4	1	0.7			3		0.080
17368	Ck	30-50	10YR 4/3	16	34	50	7.9	7.4	1	0.6			4		0.080

SOIL PROFILE INFORMATION (cont'd.)

Site: Dalewood Conservation Area

Classification: Orthic Gray Brown Luvisol

Sample No.	Horizon	Exchangeable Cations (ug/g)				C.E.C. (m.e.) 100g	Pyrophosphate (%)			Dithionite (%)			CaCO ₃ (%)	Metals (ug/g)			
		Ca	Mg	K	Al		Fe	Al	Mn	Fe	Al	Mn		Zn	Cu	Ni	Pb
17373	Ah	3070	370	180		18.80							1				
17372	Ahk	3120	350	200		18.93							6				
17371	Bt	2110	240	71		12.62							2				
17370	Bt	2880	280	69		16.82							2				
17369	Ck	2480	190	67		14.09							8				
17368	Ck	2690	180	71		15.09							14				

SOIL PROFILE INFORMATION

Horizon	Depth	Site: Springwater Conservation Area	Date: 80/07/09
Ahp	0	Location Code: 1001057	Parent Material: lacustrine clay/silt
	20	UTM: 17T 497550.0 4732700.0	Vegetation: pine forest
Bm	40	Classification: Orthic Melanic Brunisol	
	60	Landform: clay plain	Comments: depth to faint mottling 60 cm.
Ck	80	Slope: level	evidence of plowing

Sample No.	Horizon	Depth (cm)	Colour	Sand (%)	Silt (%)	Clay (%)	pH (H ₂ O)	pH (CaCl ₂)	Organic C (%)	Total Nitrogen (mg/g)	Extr. S (ug/g)	Extr. SO ₄ (ug/g)	Avail. P (ug/g)	Total P (ug/g)	Avail. Al (ug/g)
9461	Ahp	0-20	10YR 3/2	64	18	18	7.71	7.19	1.40	1.10		5.4		440	
9462	Ahp	0-20	10YR 3/2	20	46	34	7.56	7.10	2.06	1.36		8.1		430	
9459	Bm	30	7.5YR 4/4	64	10	25	8.24	7.68	0.16	0.34		7.9		330	
9460	Bm	30	7.5YR 4/4	65	11	24	8.28	7.65	0.23	0.31		8.9		280	
9457	Ck	45	10YR 5/3	11	53	35	8.42	7.86	0.35	0.35		11.0		750	
9458	Ck	45	10YR 5/3	20	41	39	8.42	7.83	0.16	0.45		11.0		260	
9455	Ck	60	10YR 6/4	3	68	28	8.39	7.86	0.25	0.38		11.0		700	
9456	Ck	60	10YR 6/4	4	70	26	8.58	7.87	0.17	0.22		8.6		630	

SOIL PROFILE INFORMATION (cont'd.)

Site: Springwater Conservation Area

Classification: Orthic Melanic Brunisol

Sample No.	Horizon	Exchangeable Cations (ug/g)				C.E.C. (m.e.) 100g	Pyrophosphate (%)			Dithionite (%)			CaCO ₃ (%)	Metals (ug/g)			
		Ca	Mg	K	Al		Fe	Al	Mn	Fe	Al	Mn		Zn	Cu	Ni	Pb
9461	Ahp	1315	185	20		8.10	0.04	0.01	0.0110	0.68	0.08	0.043	2	44	11	7.1	7.7
9462	Ahp	1517	214	30		9.36	0.04	0.00	0.0130	0.75	0.08	0.048	2	46	14	6.6	10.0
9459	Bm	1338	196	20		8.29	0.05	0.01	0.0016	1.60	0.13	0.052	1	56	25	13.0	6.0
9460	Bm	1319	204	22		8.28	0.05	0.01	0.0012	1.20	0.10	0.055	2	60	23	15.0	7.6
9457	Ck	1834	251	22		11.17	0.02	0.00	0.0031	1.40	0.12	0.054	16	64	32	20.0	6.9
9458	Ck	2144	298	25		13.15	0.02	0.00	0.0022	1.60	0.13	0.054	7	73	35	21.0	8.5
9455	Ck	1395	182	22		8.49	0.01	0.00	0.0031	1.00	0.08	0.037	32	53	35	18.0	5.3
9456	Ck	1395	180	22		8.47	0.01	0.00	0.0029	1.00	0.08	0.043	33	54	27	19.0	5.6

SOIL PROFILE INFORMATION

Horizon	Depth
Ah	0
Ae	20
Bf	40
Bm	60
Ck	80



Site: Maple Keys Conservation Area

Date: 80/10/15

Location Code: 1001118

Parent Material: sandy till or outwash

UTM: 17T 491700.0 4843750.0

Vegetation: red maple, trembling aspen, sugar maple, red pine

Classification: Sombric Humo-Ferric Podzol

Landform: till plain / spillway

Comments: dolomite rocks throughout profile

Slope: very gentle slopes

Sample No.	Horizon	Depth (cm)	Colour	Sand (%)	Silt (%)	Clay (%)	pH (H ₂ O)	pH (CaCl ₂)	Organic C (%)	Total Nitrogen (mg/g)	Extr. S (ug/g)	Extr. SO ₄ (ug/g)	Avail. P (ug/g)	Total P (ug/g)	Avail. Al (ug/g)
9962	Ah	0-10	10YR2.5/1	64	27	10	6.42	5.57	4.00	1.30		11.0		130	
9963	Ah	0-10	10YR1.5/1	61	29	10	6.45	5.57	4.69	1.71		11.0		150	
9964	Ae	10-15	10YR 8/1	59	29	11	5.77	4.78	1.50	0.61		8.7		80	
9960	Bf	25	5YR 4/6	52	34	14	6.05	4.86	2.89	1.10		9.6		260	
9961	Bf	25	5YR 4/6	56	28	16	5.81	4.80	2.17	0.85		9.9		170	
9958	Bmk	35	10YR 5/4	65	24	12	6.55	5.57	0.96	0.56		8.8		290	
9959	Bm	35	10YR 5/4	69	2	10	6.76	5.90	0.77	0.41		8.2		360	
9956	Ck	60	10YR 7/4	70	19	11	7.89	7.34	0.20	0.25		3.6		330	
9957	Ck	60	10YR 7/4	77	16	8	8.58	7.75	0.08	0.10		2.6		280	

SOIL PROFILE INFORMATION (cont'd.)

Site: Maple Keys Conservation Area

Classification: Sombric Humo-Ferric Podzol

Sample No.	Horizon	Exchangeable Cations (ug/g)				C.E.C. (m.e.) 100g	Pyrophosphate (%)			Dithionite (%)			CaCO ₃ (%)	Metals (ug/g)			
		Ca	Mg	K	Al		Fe	Al	Mn	Fe	Al	Mn		Zn	Cu	Ni	Pb
9962	Ah	1305	303	30.2		9.04	0.86	0.50	0.0024	0.75	0.17	0.011	4	41	40	7.1	18.0
9963	Ah	1453	351	24.6		10.14	0.25	0.11	0.0085	0.68	0.16	0.011	3	44	50	5.9	19.0
9964	Ae	540	126	16.0	37	4.12	0.18	0.18	0.0029	0.57	0.12	0.006		25	28	3.2	4.6
9960	Bf	433	97	16.0	34	3.32	0.39	0.60	0.0029	1.46	0.83	0.010		87	37	22.0	10.0
9961	Bf	528	112	16.0	43	4.00	0.86	0.50	0.0025	1.51	0.63	0.009		66	36	14.0	7.3
9958	Bmk	677	224	17.9		5.22	0.22	0.26	0.0083	1.05	0.34	0.024	10	63	38	19.0	7.6
9959	Bm	759	274	17.9		6.03	0.09	0.16	0.0090	0.92	0.27	0.027	3	52	29	19.0	8.5
9956	Ck	669	237	15.1		5.29	0.04	0.03	0.0072	0.46	0.07	0.018	35	28	27	11.0	3.7
9957	Ck	515	183	15.1		4.09	0.02	0.01	0.0051	0.32	0.05	0.015	48	23	23	6.8	1.3

SOIL PROFILE INFORMATION

Horizon

Depth

Site: Maple Keys Sugar Bush - Listowel

Date: 81/10/28

Ah



0

Location Code: 1001118

Parent Material: sandy till

Ae

20

UTM: 17T 491700.0 4843750.0

Vegetation: red pine, sugar maple, trembling aspen, black cherry, eastern hemlock

Bf

40

Classification: Sombric Humo-Ferric Podzol

Bm

60

Landform: till, plain/spillway

Ck

80

Slope: complex, class 3, very gentle slopes

Comments: organic mottles in Ae
clay lens at 50cm, resurvey

Sample No.	Horizon	Depth (cm)	Colour	Sand (%)	Silt (%)	Clay (%)	pH (H ₂ O)	pH (CaCl ₂)	Organic C (%)	Total Nitrogen (mg/g)	Extr. S (ug/g)	Extr. SO ₄ (ug/g)	Avail. P (ug/g)	Total P (ug/g)	Avail. Al (ug/g)
17665	Ah	0-15	10YR 4/2	57	22	21	6.2	5.6	2	1.8			3		1.20
17664	Ah	0-15	10YR 4/2	53	26	21	6.4	5.7	4	2.5			3		0.82
17663	Ae	15-30	10YR 7/1	65	30	5	5.3	4.4	1	0.5			3		1.90
17662	Ae	15-30	10YR 7/1	65	29	6	5.4	4.4	1	0.5			3		1.60
17661	Bf	15-30	10YR 5/6	68	23	9	5.7	5.0	2	0.8			3		1.50
17660	Bf	15-30	10YR 5/6	71	19	10	5.0	4.2	2	1.0			3		6.40
17659	Bm	30-40	7.5YR 4/4	62	28	10	5.3	4.4	2	0.9			3		3.20
17658	Bm	30-40	7.5YR 4/4	72	18	11	5.4	4.3	3	0.9			3		4.00
17657	Ck	60	10YR 5/6	67	27	6	5.4	4.3	1	0.5			3		4.80
17656	Ck	60	10YR 5/6	70	25	6	5.5	4.5	2	0.9			3		3.90

SOIL PROFILE INFORMATION (cont'd.)

Site: Maple Keys Sugar Bush, Listowel

Classification: Sombric Humo-Ferric Podzol

Sample No.	Horizon	Exchangeable Cations (ug/g)				C.E.C. (m.e.) 100g	Pyrophosphate (%)			Dithionite (%)			CaCO ₃ (%)	Metals (ug/g)			
		Ca	Mg	K	Al		Fe	Al	Mn	Fe	Al	Mn		Zn	Cu	Ni	Pb
17665	Ah	1600	470	79		12.01							1				
17664	Ah	1880	490	83		13.53							1				
17663	Ae	410	100	24	72	3.67											
17662	Ae	350	87	16	57	3.06											
17661	Bf	570	220	24	5	4.72							2				
17660	Bf	400	100	37	120	4.06											
17659	Bm	510	94	14	110	4.40											
17658	Bm	440	38	22	120	3.72											
17657	Ck	140	20	13	82	1.71											
17656	Ck	210	29	7	72	2.05											

SOIL PROFILE INFORMATION

Horizon	Depth	Site: Wheatley Provincial Park	Date: 81/05/05
Ah	0	Location Code: 1001123	Parent Material: lacustrine clay
Bgf	20	UTM: 17T 380500.0 4665000.0	Vegetation: ironwood, ash, red oak, sugar maple
	40	Classification: Fera Humic Gleysol	
Cg	60	Landform: clay plain	Comments: Bg mottle colour 7.5YR 7/8 Cg mottle colour 7.5YR 5/6
		Slope: simple, class 1, level	



Sample No.	Horizon	Depth (cm)	Colour	Sand (%)	Silt (%)	Clay (%)	pH (H ₂ O)	pH (CaCl ₂)	Organic C (%)	Total Nitrogen (mg/g)	Extr. S (ug/g)	Extr. SO ₄ (ug/g)	Avail. P (ug/g)	Total P (ug/g)	Avail. Al (ug/g)
17143	Ah	0-20	10YR 3/1	34	17	49	6.3	5.9	6	5.0			25		0.16
17142	Ah	0-20	10YR 3/1	29	23	48	6.3	5.8	5	4.9			32		0.22
17141	Bgf	32	10YR 6/2	31	5	64	4.7	3.9	1	0.8			3		6.90
17140	Bgf	32	10YR 6/2	23	19	58	4.7	3.9	1	0.8			3		7.00
17139	Cg	50	2.5Y 6/2	25	11	64	5.0	4.4	1	0.7			16		1.10
17138	Cg	50	2.5Y 6/2	21	18	61	5.6	4.9	1	0.9			7		0.09

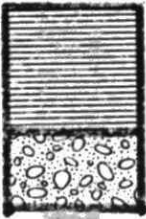
SOIL PROFILE INFORMATION (cont'd.)

Site: Wheatley Provincial Park

Classification: Fera Humic Gleysol

Sample No.	Horizon	Exchangeable Cations (ug/g)				C.E.C. (m.e.) 100g	Pyrophosphate (%)			Dithionite (%)			CaCO ₃ (%)	Metals (ug/g)			
		Ca	Mg	K	Al		Fe	Al	Mn	Fe	Al	Mn		Zn	Cu	Ni	Pb
17143	Ah	3420	440	200		21.20	0.17	0.12	0.0390	0.61	0.15	0.090	1	100	19	17	18.0
17142	Ah	2340	420	200		15.60	0.20	0.12	0.0310	0.59	0.15	0.059	1	94	16	15	14.0
17141	Bgf	920	210	83	250	8.96	0.20	0.14	0.0035	1.40	0.16	0.025		72	22	23	3.9
17140	Bgf	740	200	83	250	8.06	0.18	0.14	0.0025	1.20	0.14	0.015		65	17	18	4.7
17139	Cg	1650	370	95	62	12.10	0.17	0.07	0.0083	1.40	0.14	0.036		93	28	38	3.0
17138	Cg	1740	420	88	9	12.37	0.14	0.05	0.0091	1.30	0.14	0.039		93	29	42	3.0

SOIL PROFILE INFORMATION

Horizon	Depth	Site: The Glen Management Area	Date: 81/05/06
Ah	0	Location Code: 1001126	Parent Material: niagara escarpment
	20	UTM: 17T 500360.0 4942650.0	Vegetation: ironwood
		Classification: Unclassified	
		Landform: limestone outcrop	Comments: surface soil overlying limestone bedrock
		Slope: level	

Sample No.	Horizon	Depth (cm)	Colour	Sand (%)	Silt (%)	Clay (%)	pH (H ₂ O)	pH (CaCl ₂)	Organic C (%)	Total Nitrogen (mg/g)	Extr. S (ug/g)	Extr. SO ₄ (ug/g)	Avail. P (ug/g)	Total P (ug/g)	Avail. Al (ug/g)
17154	Surface	0-10	10YR 2/1				7.3	7.0							0.150
17153	Surface	0-10	10YR 2/1				7.2	6.9							0.830

SOIL PROFILE INFORMATION (cont'd.)

Site: The Glen Management Area

Classification: Unclassified

Sample No.	Horizon	Exchangeable Cations (ug/g)				C.E.C. (m.e.) 100g	Pyrophosphate (%)			Dithionite (%)			CaCO ₃ (%)	Metals (ug/g)			
		Ca	Mg	K	Al		Fe	Al	Mn	Fe	Al	Mn		Zn	Cu	Ni	Pb
17154	Surface	3460	870	170		24.68							43				
17153	Surface	3510	1200	410		28.13							36				

SOIL PROFILE INFORMATION

Horizon Depth

Site: Pinery Provincial Park

Date: 81/05/05

LFH 0

Location Code: 1001127

Parent Material: lacustrine sand

Aek

UTM: 17T 478710.0 4291000.0

Vegetation: red oak, birch

Bm₁k 20

Classification: Eluviated Eutric Brunisol

Bm₂k 40

Landform: beach/dunes

Comments:

Ck 60

Slope: level



Sample No.	Horizon	Depth (cm)	Colour	Sand (%)	Silt (%)	Clay (%)	pH (H ₂ O)	pH (CaCl ₂)	Organic C (%)	Total Nitrogen (mg/g)	Extr. S (ug/g)	Extr. SO ₄ (ug/g)	Avail. P (ug/g)	Total P (ug/g)	Avail. Al (ug/g)
17152	LFH	0-5	10YR 2/1	68	11	21	5.5	4.9	12	3.5				9	7.00
17151	LFH	0-5	10YR 2/1				5.2	4.8	22	5.1					
17150	Aek	5-10	10YR 5/1	88	0	12	6.6	5.8	3	0.5				3	0.91
17149	Bm ₁ k	10-28	2.5Y 4/4	86	1	13	7.9	7.4	1	0.8				3	0.08
17148	Bm ₁ k	10-28	2.5Y 4/4	86	0	14	8.1	7.4	2	0.6				3	0.10
17147	Bm ₂ k	28-34	2.5Y 3/2	89	3	9	8.1	7.4	1	0.6				3	0.08
17146	Bm ₂ k	28-34	2.5Y 3/2	86	4	10	8.0	7.4	2	0.6				3	0.08
17145	Ck	50	10YR 5/3	88	2	9	8.3	7.6	1	0.4				3	0.08
17144	Ck	50	10YR 5/3	85	2	13	8.2	7.6	1	0.4				3	0.08

SOIL PROFILE INFORMATION (cont'd.)

Site: Pinery Provincial Park

Classification: Eluviated Eutric Brunisol

Sample No.	Horizon	Exchangeable Cations (ug/g)				C.E.C. (m.e.) 100g	Pyrophosphate (%)			Dithionite (%)			CaCO ₃ (%)	Metals (ug/g)			
		Ca	Mg	K	Al		Fe	Al	Mn	Fe	Al	Mn		Zn	Cu	Ni	Pb
17152	LFH	2090	480	39	2	14.41	0.200	0.140	0.0360	0.52	0.120	0.0390		125.0	12.0	9.2	76.0
17151	LFH	2740	680	84	5	19.38	0.250	0.100	0.0400	0.63	0.150	0.0460		140.0	12.0	11.0	130.0
17150	Aek	850	130	4		5.32	0.220	0.120	0.0100	0.54	0.140	0.0190	5	40.0	3.9	7.2	7.7
17149	Bm ₁ k	1090	120	2		6.44	0.024	0.010	0.0026	0.13	0.016	0.0051	14	5.2	1.9	3.1	3.0
17148	Bm ₁ k	990	88	0		5.63	0.079	0.046	0.0100	0.32	0.047	0.0200	34	13.0	4.9	5.1	3.0
17147	Bm ₂ k	1400	100	2		8.50	0.025	0.012	0.0021	0.13	0.016	0.0046	5	4.7	1.4	2.0	3.8
17146	Bm ₂ k	1250	110	0		7.15	0.070	0.033	0.0060	0.25	0.040	0.0150	21	6.6	2.9	4.4	3.0
17145	Ck	1020	40	0		5.41	0.013	0.012	0.0017	0.11	0.016	0.0029	13	4.5	1.9	2.8	3.0
17144	Ck	670	29	0		3.60	0.029	0.023	0.0033	0.17	0.030	0.0081	38	7.0	3.4	3.8	3.0

SOIL PROFILE INFORMATION

Horizon Depth

Site: Galbraith Conservation Area

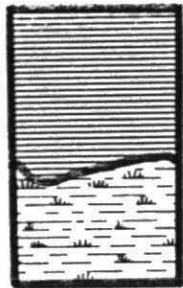
Date: 81/06/04

Ahp

0

Location Code: 1001131

Parent Material: glacial till



20

UTM: 17T 505100.0 4829100.0

Vegetation: pine

Classification: Brunisolic

Bmgj

40

Landform: till plain

Comments: mottling at 35+ cm

60

Slope: level

Sample No.	Horizon	Depth (cm)	Colour	Sand (%)	Silt (%)	Clay (%)	pH (H ₂ O)	pH (CaCl ₂)	Organic C (%)	Total Nitrogen (mg/g)	Extr. S (ug/g)	Extr. SO ₄ (ug/g)	Avail. P (ug/g)	Total P (ug/g)	Avail. Al (ug/g)
17256	Ahp	0-20	10YR 4/1	16	49	34	6.2	5.8	3						
17255	Ahp	0-20	10YR 4/1	15	49	36	6.4	5.7	3						
17254	Ahp	20	10YR 4/1	17	50	33	7.0	6.0	2						
17253	Ahp	20	10YR 4/1	17	56	27	6.9	6.2	2						
17252	Ahp	30	10YR 4/1	17	51	32	7.0	6.4	1						
17251	Ahp	30	10YR 4/1	14	48	38	7.1	6.4	2						
17250	Bmgj	35-55	10YR 5/6	21	53	25	7.6	6.7	1						
17249	Bmgj	35-55	10YR 5/6	24	52	24	7.5	6.9	1						

SOIL PROFILE INFORMATION (cont'd.)

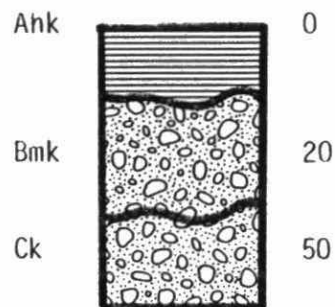
Site: Galbraith Conservation Area

Classification: Brunisolic

Sample No.	Horizon	Exchangeable Cations (ug/g)				C.E.C. (m.e.) 100g	Pyrophosphate (%)			Dithionite (%)			CaCO ₃ (%)	Metals (ug/g)			
		Ca	Mg	K	Al		Fe	Al	Mn	Fe	Al	Mn		Zn	Cu	Ni	Pb
17256	Ahp	1990	570	73		14.5						4					
17255	Ahp	2130	620	83		16.0						2					
17254	Ahp	1860	500	21		13.5						3					
17253	Ahp	2090	480	21		14.5						3					
17252	Ahp	1900	540	26		14.0						2					
17251	Ahp	2130	720	35		16.5						2					
17250	Bmgj	1940	500	40		14.0						3					
17249	Bmgj	1860	470	30		13.0						1					

SOIL PROFILE INFORMATION

Horizon Depth



Site: Durham Conservation Area

Date: 81/06/04

Location Code: 1001132

Parent Material: glacial/fluvial deposit

UTM: 17T 516000.0 4892000.0

Vegetation: juniper, grass

Classification: Orthic Melanic Brunisol

Landform: drumlin/spillway

Comments: unused portion of
very stoney gravel pit

Slope: moderate slope

Sample No.	Horizon	Depth (cm)	Colour	Sand (%)	Silt (%)	Clay (%)	pH (H ₂ O)	pH (CaCl ₂)	Organic C (%)	Total Nitrogen (mg/g)	Extr. S (ug/g)	Extr. SO ₄ (ug/g)	Avail. P (ug/g)	Total P (ug/g)	Avail. Al (ug/g)
17261	Ahk	0-12	10YR 2/1	44	26	30	7.8	7.3	2	2.7			3		0.080
17260	Ahk	0-12	10YR 2/1	45	25	30	7.9	7.3	2	3.0			3		0.080
17259	Bmk	20	10YR 3/2	48	29	24	8.0	7.3	3	2.3			3		0.080
17258	Bmk	20	10YR 3/2	47	22	31	8.0	7.4	3	2.4			3		0.080
17257	Ck	50-90	10YR 5/4	69	12	19	7.8	7.3	1	0.7			3		0.080

SOIL PROFILE INFORMATION (cont'd.)

Site: Durham Conservation Area

Classification: Orthic Melanic Brunisol

Sample No.	Horizon	Exchangeable Cations (ug/g)				C.E.C. (m.e.) 100g	Pyrophosphate (%)			Dithionite (%)			CaCO ₃ (%)	Metals (ug/g)			
		Ca	Mg	K	Al		Fe	Al	Mn	Fe	Al	Mn		Zn	Cu	Ni	Pb
17261	Ahk	1760	480	79	0	12.80							35				
17260	Ahk	2120	470	75		14.54							35				
17259	Bmk	1840	470	21		13.00							27				
17258	Bmk	1910	620	30		14.50							26				
17257	Ck	670	210	20		5.00							69				

SOIL PROFILE INFORMATION

Horizon Depth

Site: Longwoods Conservation Area

Date: 81/05/13

Ah 0

Location Code: 1001134

Parent Material: deltaic sand

Ae 20

UTM: 17T 460950.0 4747500.0

Vegetation: cedar

Bm 40

Classification: Brunisolic Gray Brown Luvisol

Bt 60

Landform: sand plain

Comments: site beside A.P.I.O.S.
precipitation collector

C 80

Slope: class 5, moderately steep

Sample No.	Horizon	Depth (cm)	Colour	Sand (%)	Silt (%)	Clay (%)	pH (H ₂ O)	pH (CaCl ₂)	Organic C (%)	Total Nitrogen (mg/g)	Extr. S (ug/g)	Extr. SO ₄ (ug/g)	Avail. P (ug/g)	Total P (ug/g)	Avail. Al (ug/g)
18019	Ah	0-15	10YR 3/3	83	9	8	5.5	4.9	2	1.5			5		1.500
18018	Ah	0-15	10YR 3/3	84	8	8	5.2	4.6	2	1.0			3		0.240
18017	Ae	15-27	10YR 5/6	81	12	6	5.9	5.2	1	0.4			3		0.580
18016	Ae	15-27	10YR 5/6	81	13	6	6.0	5.4	1	0.3			3		0.080
18015	Bt ₁	27-40	10YR 5/8	71	16	13	6.0	5.5	1	0.3			3		0.094
18014	Bt ₁	27-40	10YR 5/8	65	19	16	6.3	5.5	1	0.2			3		0.080
18013	Bt ₂	40-50	10YR 4/4	57	6	37	5.7	5.1	1	0.3			3		0.170
18012	Bt ₂	40-50	10YR 4/4	37	14	49	5.8	5.0	1	0.5			3		0.080
18011	C	50-80	10YR 5/6	88	3	9	6.2	5.4	1	0.1			3		0.080
18010	C	50-80	10YR 5/6	80	8	13	6.3	5.5	1	0.2			3		0.080

SOIL PROFILE INFORMATION (cont'd.)

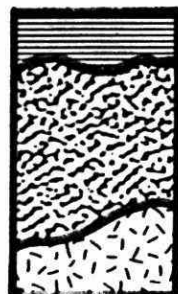
Site: Longwoods Conservation Area

Classification: Brunisolic Gray Brown Luvisol

Sample No.	Horizon	Exchangeable Cations (ug/g)				C.E.C. (m.e.) 100g	Pyrophosphate (%)			Dithionite (%)			CaCO3 (%)	Zn	Metals (ug/g)			
		Ca	Mg	K	Al		Fe	Al	Mn	Fe	Al	Mn			Cu	Ni	Pb	
18019	Ah	980	82	170	0	5.99	0.110	0.100	0.0160	0.600	0.170	0.0230		72	9.3	7.0	13.0	
18018	Ah	720	59	120	11	4.49	0.100	0.100	0.0130	0.530	0.150	0.0200	1	66	8.4	6.6	11.0	
18017	Ae	270	18	45	0	1.60	0.120	0.095	0.0055	0.600	0.170	0.0290	1	50	8.5	8.1	3.5	
18016	Ae	300	27	54	0	1.86	0.098	0.049	0.0041	0.570	0.120	0.0410	1	42	10.0	7.6	6.2	
18015	Bt ₁	420	47	58		2.61	0.063	0.033	0.0031	0.540	0.088	0.0330	1	43	13.0	7.6	4.0	
18014	Bt ₁	640	82	54		4.01	0.071	0.031	0.0022	0.850	0.120	0.0390	3	48	20.0	11.0	4.7	
18013	Bt ₂	1170	160	70	0	7.29	0.095	0.045	0.0044	1.200	0.150	0.0430	1	83	34.0	19.0	10.0	
18012	Bt ₂	1280	230	97	0	8.50	0.120	0.055	0.0048	1.700	0.210	0.0500	2	100	49.0	28.0	14.0	
18011	C	350	36	45	0	2.13	0.037	0.019	0.0014	0.500	0.065	0.0240	2	50	14.0	6.5	7.1	
18010	C	670	82	69		4.19	0.064	0.027	0.0022	0.870	0.098	0.0320	2	76	23.0	11.0	12.0	

SOIL PROFILE INFORMATION

Horizon	Depth	Site: John E. Pearce Provincial Park	Date: 81/06/17
Ah	0	Location Code: 1001165	Parent Material: deltaic sand
Bm ₁	20	UTM: 17T 4638500.0 4716800.0	Vegetation: maple, elm
	40	Classification: Orthic Melanic Brunisol	
Bm ₂	60	Landform: sand plain	Comments:
C	80	Slope: gentle slopes	



Sample No.	Horizon	Depth (cm)	Colour	Sand (%)	Silt (%)	Clay (%)	pH (H ₂ O)	pH (CaCl ₂)	Organic C (%)	Total Nitrogen (mg/g)	Extr. S (ug/g)	Extr. SO ₄ (ug/g)	Avail. P (ug/g)	Total P (ug/g)	Avail. Al (ug/g)
17367	Ah	0-20	10YR 3/1	64	16	20	5.8	5.2	1	2.4			4		0.84
17366	Ah	0-20	10YR 3/1	66	20	14	5.2	5.0	1	3.2			10		0.87
17365	Bm ₁	20-30	10YR 4/6	72	11	17	6.0	5.4	1	0.8			3		0.14
17364	Bm ₁	20-30	10YR 4/6	70	14	16	5.9	5.3	1	0.8			3		0.50
17363	Bm ₂	40	10YR 4/4	72	14	14	6.0	5.4	1	0.5			3		0.20
17362	Bm ₂	40	10YR 4/4	66	16	18	6.1	5.5	1	0.5			3		0.12
17361	C	60-70	10YR 5/4	68	16	16	5.9	5.5	1	0.4			3		0.08
17360	C	60-70	10YR 5/4	73	15	12	6.2	5.6	1	0.3			3		0.08

SOIL PROFILE INFORMATION (cont'd.)

Site: John E. Pearce Provincial Park

Classification: Orthic Melanic Brunisol

Sample No.	Horizon	Exchangeable Cations (ug/g)				C.E.C. (m.e.) 100g	Pyrophosphate (%)			Dithionite (%)			CaCO ₃ (%)	Zn	Metals (ug/g)		
		Ca	Mg	K	Al		Fe	Al	Mn	Fe	Al	Mn			Cu	Ni	Pb
17367	Ah	1540	150	63	2	9.03	0.140	0.120	0.0071	0.370	0.140	0.0086	2	34	4.6	2.5	8.3
17366	Ah	2000	170	67	7	10.39	0.120	0.110	0.0082	0.380	0.130	0.0110	1	38	4.6	2.7	8.6
17365	Bm ₁	510	39	4	4	2.90	0.170	0.200	0.0009	0.510	0.290	0.0030	1	35	5.6	6.8	3.0
17364	Bm ₁	500	42	4	2	2.84	0.190	0.200	0.0012	0.538	0.280	0.0046	1	31	4.1	4.3	3.0
17363	Bm ₂	400	32	0	0	2.26	0.130	0.150	0.0011	0.440	0.240	0.0035	1	25	4.6	5.7	3.0
17362	Bm ₂	390	30	0		2.19	0.120	0.150	0.0011	0.440	0.230	0.0039	1	26	4.6	5.7	3.0
17361	C	320	28	0		1.80	0.088	0.080	0.0013	0.390	0.170	0.0069	1	21	4.5	6.2	4.2
17360	C	220	21	0		1.30	0.072	0.068	0.0013	0.340	0.150	0.0081	1	21	4.5	6.2	3.0

SOIL PROFILE INFORMATION

Horizon Depth Site: A. W. Campbell Conservation Area Date: 81/06/17

Ahp 0 Location Code: 1001166 Parent Material: lacustrine clay

20 UTM: 17T 431650.0 4741550.0 Vegetation: maple, elm

Btg 40 Classification: Humic Luvis Gleysol

Landform: clay plain Comments: mottle colour 10YR 6/6 in Bt, distinct.

Slope: simple, class 1, level



Sample No.	Horizon	Depth (cm)	Colour	Sand (%)	Silt (%)	Clay (%)	pH (H ₂ O)	pH (CaCl ₂)	Organic C (%)	Total Nitrogen (mg/g)	Extr. S (ug/g)	Extr. SO ₄ (ug/g)	Avail. P (ug/g)	Total P (ug/g)	Avail. Al (ug/g)
17343	Ahp	0-20	10YR 2/1	10	44	46	6.3	5.9	7	7.4			11		0.160
17342	Ahp	0-20	10YR 2/1	9	38	53	6.5	5.9	7	6.2			11		0.210
17341	Bg	20-30	10YR 6/2	14	34	52	4.6	3.9	1	1.1			3		10.000
17340	Bg	20-30	10YR 6/2	12	46	43	4.8	3.9	1	0.9			3		11.000
17339	Btg	40	10YR 5/2	3	34	63	7.5	7.0	1	0.7			3		0.080
17338	Btg	40	10YR 5/2	2	35	62	7.4	7.2	1	0.9			3		0.096

SOIL PROFILE INFORMATION (cont'd.)

Site: A. W. Campbell Conservation Area

Classification: Humic Luvic Gleysol

Sample No.	Horizon	Exchangeable Cations (ug/g)				C.E.C. (m.e.) 100g	Pyrophosphate (%)			Dithionite (%)			CaCO ₃ (%)	Metals (ug/g)			
		Ca	Mg	K	Al		Fe	Al	Mn	Fe	Al	Mn		Zn	Cu	Ni	Pb
17343	Ahp	3840	500	400		24.18	0.200	0.110	0.0340	0.810	0.180	0.0750	1	82	12.0	17	20.0
17342	Ahp	3290	490	360		21.28	0.190	0.100	0.0340	0.810	0.170	0.0720	1	80	12.0	17	18.0
17341	Bg	770	120	96	370	8.71	0.190	0.095	0.0030	0.920	0.170	0.0098		67	11.0	22	6.2
17340	Bg	710	120	110	400	8.77	0.180	0.100	0.0028	0.940	0.170	0.0118		67	9.9	21	6.9
17339	Btg	2370	390	96	0	15.23	0.035	0.018	0.0048	1.100	0.150	0.0400	2	79	25.0	38	5.6
17338	Btg	2960	390	88		18.11	0.035	0.018	0.0048	1.100	0.150	0.0430	2	84	28.0	39	7.3

SOIL PROFILE INFORMATION

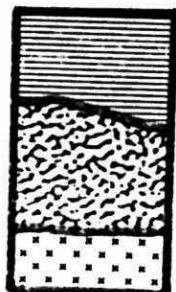
Horizon Depth

Ahk 0

Bmk 20

40

Ck 60



Site: Mill Pond Conservation Area - Delaware

Date: 81/06/17

Location Code: 1001167

Parent Material: fluvial outwash

UTM: 17T 460950.0 4747500.0

Vegetation: elm

Classification: Orthic Melanic Brunisol

Landform: spillway

Comments: evidence of solifluction

Slope: moderate slope

Sample No.	Horizon	Depth (cm)	Colour	Sand (%)	Silt (%)	Clay (%)	pH (H ₂ O)	pH (CaCl ₂)	Organic C (%)	Total Nitrogen (mg/g)	Extr. S (ug/g)	Extr. SO ₄ (ug/g)	Avail. P (ug/g)	Total P (ug/g)	Avail. Al (ug/g)
17359	Ahk	0-20	10YR 3/2	31	42	27	7.8	7.3	2	1.4			6		0.080
18358	Ahk	0-20	10YR 3/2	34	35	31	7.5	7.1	1	1.2			3		0.080
18357	Bmk	30	10YR 5/3	23	39	38	7.9	7.4	1	0.5			3		0.080
17356	Bmk	30	10YR 5/3	33	43	23	7.9	7.4	1	0.5			3		0.080
17355	Ck	50	10YR 4/3	33	44	22	7.9	7.3	1	0.4			3		0.080
17354	Ck	50	10YR 4/3	27	53	21	8.0	7.4	1	0.7			3		0.080

SOIL PROFILE INFORMATION (cont'd.)

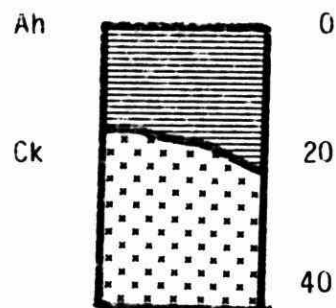
Site: Mill Pond Conservation Area - Delaware

Classification: Orthic Melanic Brunisol

Sample No.	Horizon	Exchangeable Cations (ug/g)				C.E.C. (m.e.) 100g	Pyrophosphate (%)			Dithionite (%)			CaCO ₃ (%)	Metals (ug/g)			
		Ca	Mg	K	Al		Fe	Al	Mn	Fe	Al	Mn		Zn	Cu	Ni	Pb
17359	Ahk	2530	120	110		13.85	0.041	0.016	0.0150	0.420	0.052	0.0230	14	42	12.0	9.5	10.0
18358	Ahk	2270	86	98		12.30	0.041	0.016	0.0150	0.470	0.064	0.0260	14	40	12.0	8.4	9.5
18357	Bmk	1270	42	47		6.81	0.022	0.008	0.0053	0.420	0.052	0.0230	20	34	11.0	9.0	6.6
17356	Bmk	1500	51	55		8.05	0.025	0.012	0.0057	0.400	0.049	0.0200	19	33	10.0	7.5	5.2
17355	Ck	1270	39	51		6.80	0.031	0.013	0.0060	0.440	0.064	0.0210	18	35	11.0	9.5	4.3
17354	Ck	1320	53	35		7.11	0.028	0.010	0.0056	0.360	0.043	0.0200	26	32	9.9	7.5	4.6

SOIL PROFILE INFORMATION

Horizon Depth



Site: Craigleith Provincial Park

Date: 81/06/23

Location Code: 1001185

Parent Material: lacustrine clay

UTM: 17T 557900.0 4931000.0

Vegetation: grasses, shrubs

Classification: Orthic Humic Regosol

Landform: clay plain

Comments: depth to shale bedrock 40 cm
road cut

Slope: level

Sample No.	Horizon	Depth (cm)	Colour	Sand (%)	Silt (%)	Clay (%)	pH (H ₂ O)	pH (CaCl ₂)	Organic C (%)	Total Nitrogen (mg/g)	Extr. S (ug/g)	Extr. SO ₄ (ug/g)	Avail. P (ug/g)	Total P (ug/g)	Avail. Al (ug/g)
18198	Ah	0-25	2.5YR 5/2	2	34	63	7.6	7.3	2	2.4					0.570
18199	Ck	25-30	2.5YR 6/2	0	18	81	8.3	7.6	1	0.8					0.110


SOIL PROFILE INFORMATION (cont'd.)

Site: Craigleith Provincial Park

Classification: Orthic Humic Regosol

Sample No.	Horizon	Exchangeable Cations (ug/g)				C.E.C. (m.e.) 100g	Pyrophosphate (%)			Dithionite (%)			CaCO ₃ (%)	Metals (ug/g)			
		Ca	Mg	K	Al		Fe	Al	Mn	Fe	Al	Mn		Zn	Cu	Ni	Pb
18198	Ah	2980	300	290		18.00	0.100	0.059	0.0160	1.300	0.120	0.0540	2	80	18	25	3
18199	Ck	2230	320	87		13.92	0.018	0.013	0.0038	1.300	0.082	0.0210	12	52	15	24	3

SOIL PROFILE INFORMATION

Horizon Ah Depth 0
 8

Site: Eugenia Falls Conservation Area Date: 81/07/15
 Location Code: 1001187 Parent Material: limestone bedrock
 UTM: 17T 537850.0 490660.0 Vegetation: cedar, maple
 Classification: Regosolic
 Landform: limestone plain Comments: depth to limestone bedrock 8 cm.
 Slope: level very stoney

Sample No.	Horizon	Depth (cm)	Colour	Sand (%)	Silt (%)	Clay (%)	pH (H ₂ O)	pH (CaCl ₂)	Organic C (%)	Total Nitrogen (mg/g)	Extr. S (ug/g)	Extr. SO ₄ (ug/g)	Avail. P (ug/g)	Total P (ug/g)	Avail. Al (ug/g)
18257	Ah	0-8	10YR 3/2	16	42	42	7.2	6.9	7	6.3					0.080
18256	Ah	0-8	10YR 3/2	16	44	41	7.0	6.8	7	7.0					0.080

SOIL PROFILE INFORMATION (cont'd.)

Site: Eugenia Falls Conservation Area

Classification: Regosolic

Sample No.	Horizon	Exchangeable Cations (ug/g)				C.E.C. (m.e.) 100g	Pyrophosphate (%)			Dithionite (%)			CaCO ₃ (%)	Zn	Metals (ug/g)		
		Ca	Mg	K	Al		Fe	Al	Mn	Fe	Al	Mn			Cu	Ni	Pb
18257	Ah	950	830	140		11.76	0.210	0.097	0.0680	1.2	0.20	0.13	3	77	12	11	43
18256	Ah	3800	760	140		24.45	0.190	0.091	0.0630	1.1	0.18	0.12	2	72	12	11	38

SOIL PROFILE INFORMATION

Horizon Depth

Site: Beautiful Joe Conservation Area

Date: 81/06/23

Ahk 0

Location Code: 1001188

Parent Material: lacustrine sand

20

UTM: 17T 531850.0 4938750.0

Vegetation: maple

Bmk 40

Classification: Orthic Melanic Brunisol

60

Landform: sand plain/shoreline

Comments: charcoal layer in C horizon
faint mottles (5YR 4/6) in C horizon

Cgjk 80

Slope: level

Sample No.	Horizon	Depth (cm)	Colour	Sand (%)	Silt (%)	Clay (%)	pH (H ₂ O)	pH (CaCl ₂)	Organic C (%)	Total Nitrogen (mg/g)	Extr. S (ug/g)	Extr. SO ₄ (ug/g)	Avail. P (ug/g)	Total P (ug/g)	Avail. Al (ug/g)
18197	Ahk	0-10	10YR 3/2	20	50	31	7.6	7.2	3	3.0					0.140
18196	Ahk	0-10	10YR 3/2	22	47	32	7.6	7.3	3	3.1					0.080
18195	Bmk	30	10YR 3/3	41	38	21	8.0	7.4	1	1.0					0.080
18194	Bmk	30	10YR 3/3	48	29	22	8.1	7.4	1	1.0			3		0.080
18193	Bmk	40	10YR 3/3	38	40	22	7.9	7.4	2	1.6			3		0.080
18192	Bmk	40	10YR 3/3	43	34	23	7.9	7.3	2	1.8			3		0.210
18191	Cgjk	60-70	10YR 5/4	72	12	16	8.0	7.4	1	0.8			3		0.080
18190	Cgjk	60-70	10YR 5/4	70	14	16	8.1	7.4	1	0.5			3		0.080

SOIL PROFILE INFORMATION (cont'd.)

Site: Beautiful Joe Conservation Area

Classification: Orthic Melanic Brunisol

Sample No.	Horizon	Exchangeable Cations (ug/g)				C.E.C. (m.e.) 100g	Pyrophosphate (%)			Dithionite (%)			CaCO ₃ (%)	Metals (ug/g)			
		Ca	Mg	K	Al		Fe	Al	Mn	Fe	Al	Mn		Zn	Cu	Ni	Pb
18197	Ahk	2570	200	220		15.03	0.097	0.040	0.0280	0.600	0.053	0.0450	21	48	21	11.0	8.2
18196	Ahk	2570	180	210		14.86	0.098	0.040	0.0280	0.620	0.058	0.0460	22	45	19	10.0	11.0
18195	Bmk	1340	77	94		7.56	0.076	0.034	0.0110	0.520	0.047	0.0390	25	33	17	10.0	3.0
18194	Bmk	1120	67	83		6.36	0.070	0.035	0.0095	0.470	0.047	0.0330	26	26	14	7.1	3.0
18193	Bmk	1730	130	100		9.91	0.150	0.052	0.0170	0.670	0.055	0.0420	26	29	17	9.1	3.0
18192	Bmk	1730	120	87		9.79	0.150	0.050	0.0140	0.380	0.050	0.0300	22	28	17	10.0	3.4
18191	Cgjk	910	83	50		5.32	0.060	0.028	0.0041	0.280	0.029	0.0085	31	18	16	6.2	3.0
18190	Cgjk	930	87	55		5.50	0.071	0.027	0.0047	0.320	0.032	0.0100	37	18	14	6.3	4.4

SOIL PROFILE INFORMATION

Horizon Depth

Ahk



0

20

Site: Bell's Lake Conservation Area

Date: 81/07/14

Location Code: 1001200

Parent Material: till

UTM: 17T 525650.0 4905300.0

Vegetation: grasses

Classification: Unclassified

Landform: till/drumlin

Comments: exceedingly stoney
evidence of past disturbance

Slope: gently sloping

Sample No.	Horizon	Depth (cm)	Colour	Sand (%)	Silt (%)	Clay (%)	pH (H ₂ O)	pH (CaCl ₂)	Organic C (%)	Total Nitrogen (mg/g)	Extr. S (ug/g)	Extr. SO ₄ (ug/g)	Avail. P (ug/g)	Total P (ug/g)	Avail. Al (ug/g)
18253	Ahk	0-15	10YR 3/3	31	42	27	7.6	7.1	3	3.4					0.080
18252	Ahk	0-15	10YR 3/3	25	48	27	7.7	7.2	3	3.6					0.110

SOIL PROFILE INFORMATION (cont'd.)


Site: Bell's Lake Conservation Area

Classification: Unclassified

Sample No.	Horizon	Exchangeable Cations (ug/g)				C.E.C. (m.e.) 100g	Pyrophosphate (%)			Dithionite (%)			CaCO ₃ (%)	Metals (ug/g)			
		Ca	Mg	K	Al		Fe	Al	Mn	Fe	Al	Mn		Zn	Cu	Ni	Pb
18253	Ahk	1510	380	160		11.01							12				
18252	Ahk	1670	430	160		12.23							10				

SOIL PROFILE INFORMATION

Horizon Ah Depth 0 20



Site: Epping Lookout Conservation Area
 Location Code: 1001201
 UTM: 17T 536500.0 4923550.0
 Classification: Unclassified
 Landform: limestone plain
 Slope: level

Date: 81/07/14
 Parent Material: limestone and till
 Vegetation: grasses
 Comments: site recently cleared

Sample No.	Horizon	Depth (cm)	Colour	Sand (%)	Silt (%)	Clay (%)	pH (H ₂ O)	pH (CaCl ₂)	Organic C (%)	Total Nitrogen (mg/g)	Extr. S (ug/g)	Extr. SO ₄ (ug/g)	Avail. P (ug/g)	Total P (ug/g)	Avail. Al (ug/g)
18255	Ah	0-10	7.5YR 3/2	27	44	29	7.4	6.9	2	2.5					0.080
18254	Ah	0-10	7.5YR 3/2	32	40	27	7.3	6.9	2	2.3					0.080

SOIL PROFILE INFORMATION (cont'd.)

Site: Epping Lookout Conservation Area

Classification: Unclassified

Sample No.	Horizon	Exchangeable Cations (ug/g)				C.E.C. (m.e.) 100g	Pyrophosphate (%)			Dithionite (%)			CaCO ₃ (%)	Metals (ug/g)			
		Ca	Mg	K	Al		Fe	Al	Mn	Fe	Al	Mn		Zn	Cu	Ni	Pb
18255	Ah	1730	170	76		10.20							1				
18254	Ah	1510	180	87		9.19							2				

SOIL PROFILE INFORMATION

Horizon Depth

Ahk



0

Bmk

20

40

Site: Wawanosh Valley Conservation Area

Date: 81/07/15

Location Code: 1001202

Parent Material: sandy till

UTM: 17T 462900.0 485600.0

Vegetation: cedar

Classification: Orthic Melanic Brunisol

Landform: kame moraine

Comments: very stoney

Slope: level

Sample No.	Horizon	Depth (cm)	Colour	Sand (%)	Silt (%)	Clay (%)	pH (H ₂ O)	pH (CaCl ₂)	Organic C (%)	Total Nitrogen (mg/g)	Extr. S (ug/g)	Extr. SO ₄ (ug/g)	Avail. P (ug/g)	Total P (ug/g)	Avail. Al (ug/g)
18270	Ahk	0-17	10YR 3/2	61	18	20	7.7	7.3	4	2.4					0.088
18269	Ahk	0-17	10YR 3/2	62	18	20	7.7	7.3	5	2.6					0.080
18268	Bmk	17-20	7.5YR 5/6	61	20	19	7.6	7.2	3	1.4					0.080

SOIL PROFILE INFORMATION (cont'd.)

Site: Wawanosh Valley Conservation Area

Classification: Orthic Melanic Brunisol

Sample No.	Horizon	Exchangeable Cations (ug/g)				C.E.C. (m.e.) 100g	Pyrophosphate (%)			Dithionite (%)			CaCO ₃ (%)	Zn	Metals (ug/g)		
		Ca	Mg	K	Al		Fe	Al	Mn	Fe	Al	Mn			Cu	Ni	Pb
18270	Ahk	1720	220	56		10.53	0.180	0.130	0.060	0.970	0.160	0.088	13	66	7.4	10	10.0
18269	Ahk	1550	200	62		9.54	0.180	0.100	0.054	0.940	0.140	0.089	15	70	8.9	10	16.0
18268	Ahk	1030	160	31		6.50	0.220	0.170	0.030	1.600	0.220	0.094	6	84	14.0	19	6.2

SOIL PROFILE INFORMATION

Horizon Depth

Site: Falls Reserve Conservation Area

Date: 81/07/15

Ah

0

Location Code: 1001203

Parent Material: sandy till

UTM: 17T 449150.0 4840800.0

Vegetation: grasses

Classification: Unclassified

Landform: moraine

Comments: exceedingly stoney
many weathered rocks (quartz,
sandstone)

Slope: gentle slope



20

Sample No.	Horizon	Depth (cm)	Colour	Sand (%)	Silt (%)	Clay (%)	pH (H ₂ O)	pH (CaCl ₂)	Organic C (%)	Total Nitrogen (mg/g)	Extr. S (ug/g)	Extr. SO ₄ (ug/g)	Avail. P (ug/g)	Total P (ug/g)	Avail. Al (ug/g)
18267	Ah	0-15	10YR 2/2	55	23	22	7.8	7.3	6	3.3					0.080
18266	Ah	0-15	10YR 2/2	54	24	22	7.8	7.4	6	3.5					0.260

SOIL PROFILE INFORMATION (cont'd.)

Site: Falls Reserve Conservation Area

Classification: Unclassified

Sample No.	Horizon	Exchangeable Cations (ug/g)				C.E.C. (m.e.) 100g	Pyrophosphate (%)			Dithionite (%)			CaCO ₃ (%)	Zn	Metals (ug/g)		
		Ca	Mg	K	Al		Fe	Al	Mn	Fe	Al	Mn			Cu	Ni	Pb
18267	Ah	1710	150	90	.	10.01	0.13	0.13	0.049	1.40	0.31	0.140	12	120	10	16	28
18266	Ah	1970	160	99		11.37	0.13	0.12	0.051	1.30	0.30	0.150	11	120	11	17	26

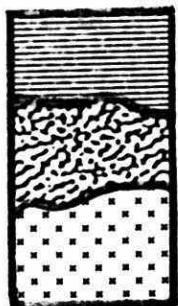
SOIL PROFILE INFORMATION

Horizon Depth

Site: Filtration Plant, Union

Date: 81/07/15

Ap



0

Location Code: 1001204

Parent Material: deltaic sand and lacustrine clay

20

UTM: 17T 484250.0 47.27350.0

Vegetation: grass

Bm

40

Classification: Orthic Eutric Brunisol

60

Landform: sand plain/clay plain overlap

Comments: near APIOS precipitation collector topsoil disturbed

Ck

80

Slope: level

Sample No.	Horizon	Depth (cm)	Colour	Sand (%)	Silt (%)	Clay (%)	pH (H ₂ O)	pH (CaCl ₂)	Organic C (%)	Total Nitrogen (mg/g)	Extr. S (ug/g)	Extr. SO ₄ (ug/g)	Avail. P (ug/g)	Total P (ug/g)	Avail. Al (ug/g)
18264	Ap	0-25	10YR 4/4	39	35	26	7.3	6.5	1	0.6			15		0.080
18263	Ap	0-25	10YR 4/4	33	39	28	7.2	6.4	1	0.6					0.080
18262	Bm	25-45	10YR 5/4	50	36	14	7.2	6.4	1	0.3					0.080
18261	Bm	25-45	10YR 5/4	51	33	16	7.8	7.0	1	0.3					0.080
18260	Bm	45-55	10YR 5/4	51	32	17	7.5	6.8	1	0.2					0.080
18265	Bm	45-55	10YR 5/4	22	54	24	7.7	7.0	1	0.3					0.080
18259	Ck	55-60	10YR 5/6	16	71	13	8.5	7.7	1	0.1					0.080
18258	Ck	55-60	10YR 5/6	18	64	17	8.5	7.7	1	0.2					0.080

SOIL PROFILE INFORMATION (cont'd.)

Site: Filtration Plant, Union

Classification: Orthic Eutric Brunisol

Sample No.	Horizon	Exchangeable Cations (ug/g)				C.E.C. (m.e.) 100g	Pyrophosphate (%)			Dithionite (%)			CaCO ₃ (%)	Metals (ug/g)			
		Ca	Mg	K	Al		Fe	Al	Mn	Fe	Al	Mn		Zn	Cu	Ni	Pb
18264	Ap	1220	200	82		7.91	0.077	0.037	0.0066	0.690	0.094	0.0330	1	43	11	11.0	7.7
18263	Ap	1200	190	63		7.68	0.067	0.031	0.0037	0.890	0.100	0.0340	2	45	13	11.0	6.3
18262	Bm	660	87	19		4.06	0.030	0.017	0.0013	0.480	0.058	0.0330	2	32	10	7.1	3.0
18261	Bm	1160	110	29		6.71	0.031	0.018	0.0018	0.570	0.064	0.0370	4	42	15	8.9	8.4
18260	Bm	970	130	31		5.95	0.036	0.020	0.0012	0.660	0.074	0.0400	2	92	35	19.0	12.0
18265	Bm	1380	200	46		8.64	0.036	0.023	0.0016	0.660	0.076	0.0430	1	42	17	11.0	3.6
18259	Ck	680	60	19		3.94	0.010	0.007	0.0021	0.350	0.028	0.0240	23	24	12	5.8	3.0
18258	Ck	680	58	13		3.90	0.009	0.006	0.0022	0.330	0.031	0.0230	23	24	13	5.5	3.0

SOIL PROFILE INFORMATION

Horizon Depth

Site: Point Farms Provincial Park

Date: 81/07/16

Ahk 0

Location Code: 1001205

Parent Material: silty till

Bfj 20

UTM: 17T 4411450.0 4850250.0

Vegetation: maple, grasses

Bk 40

Classification: Orthic Melanic Brunisol

Landform: till plain

Comments:

Ck 60

Slope: level



Sample No.	Horizon	Depth (cm)	Colour	Sand (%)	Silt (%)	Clay (%)	pH (H ₂ O)	pH (CaCl ₂)	Organic C (%)	Total Nitrogen (mg/g)	Extr. S (ug/g)	Extr. SO ₄ (ug/g)	Avail. P (ug/g)	Total P (ug/g)	Avail. Al (ug/g)
18277	Ahk	0-20	10YR 2/2	54	4	42	7.2	6.8	7	6.3					0.380
18276	Ahk	0-20	10YR 2/2	47	29	24	7.4	6.9	5	6.9					0.300
18275	Bfj	20-40	10YR 5/8	42	40	18	7.3	6.8	2	1.9					0.160
18274	Bfj	20-40	10YR 5/8	36	36	21	7.2	6.8	3	2.1					0.099
18273	Bk	35-40	7.5YR 5/6	41	49	11	7.7	7.1	1	0.9					0.080
18272	Ck	40-55	2.5YR 7/4	5	82	12	8.5	7.6	1	0.3					0.080
18271	Ck	40-55	2.5YR 7/4	4	85	11	8.4	7.6	1	0.2					0.080

SOIL PROFILE INFORMATION (cont'd.)

Site: Point Farms Provincial Park

Classification: Orthic Melanic Brunisol

Sample No.	Horizon	Exchangeable Cations (ug/g)				C.E.C. (m.e.) 100g	Pyrophosphate (%)			Dithionite (%)			CaCO ₃ (%)	Metals (ug/g)			
		Ca	Mg	K	Al		Fe	Al	Mn	Fe	Al	Mn		Zn	Cu	Ni	Pb
18277	Ahk	590	570	100		7.79	0.110	0.066	0.0084	0.430	0.098	0.0110	5	30.0	4.9	4.7	8.8
18276	Ahk	3750	660	140		24.41	0.099	0.058	0.0095	0.470	0.100	0.0140	5	31.0	5.4	4.8	6.7
18275	Bfj	1510	280	52		9.90	0.250	0.230	0.0061	0.910	0.360	0.0180	3	38.0	6.4	13.0	3.0
18274	Bfj	1590	300	56		10.54	0.300	0.240	0.0058	0.940	0.360	0.0190	2	36.0	4.9	11.0	3.0
18273	Bk	790	180	43		5.52	0.110	0.070	0.0100	0.610	0.110	0.0360	27	14.0	6.9	9.5	3.0
18272	Ck	570	98	16		3.67	0.003	0.016	0.0035	0.260	0.031	0.0095	57	3.7	4.9	4.8	3.0
18271	Ck	450	24	7		2.44	0.030	0.013	0.0033	0.250	0.028	0.0093	57	2.6	3.9	4.9	3.0

SOIL PROFILE INFORMATION

Horizon Depth

Site: Clinton Conservation Area

Date: 81/07/16

Ahk 0

Location Code: 1001206

Parent Material: till

20

UTM: 17T 457550.0 4827400.0

Vegetation: grasses

Bk 40

Classification: Orthic Melanic Brunisol

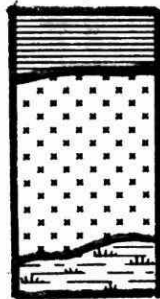
60

Landform: till plain

Comments: stoney at 80 cm, near swamp

Cgk 80

Slope: level



Sample No.	Horizon	Depth (cm)	Colour	Sand (%)	Silt (%)	Clay (%)	pH (H ₂ O)	pH (CaCl ₂)	Organic C (%)	Total Nitrogen (mg/g)	Extr. S (ug/g)	Extr. SO ₄ (ug/g)	Avail. P (ug/g)	Total P (ug/g)	Avail. Al (ug/g)
18285	Ahk	0-15	10YR 3/1	33	34	33	7.7	7.3	3	3.1			4		0.080
18284	Ahk	0-15	10YR 3/1	35	38	27	7.8	7.3	3	3.2			3		0.080
18283	Ahk	15-40	10YR 3/2	38	37	25	7.9	7.4	2	1.9			3		0.080
18282	Ahk	15-40	10YR 3/2	40	35	25	7.9	7.4	2	2.5			3		0.080
18281	Bk	40-50	10YR 5/6	48	45	7	8.1	7.5	1	2.0			3		0.080
18280	Bk	40-50	10YR 5/6	56	40	4	8.1	7.5	1	1.4			3		0.080
18279	Cgk	70-80	10YR 4/6	65	21	14	8.3	7.6	1	0.8			3		0.080
18278	Cgk	70-80	10YR 4/6	67	18	15	8.3	7.6	1	0.8			3		0.080

SOIL PROFILE INFORMATION (cont'd.)

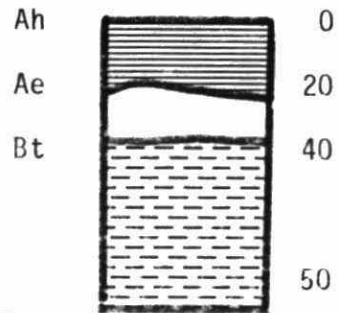
Site: Clinton Conservation Area

Classification: Orthic Melanic Brunisol

Sample No.	Horizon	Exchangeable Cations (ug/g)				C.E.C. (m.e.) 100g	Pyrophosphate (%)			Dithionite (%)			CaCO ₃ (%)	Metals (ug/g)			
		Ca	Mg	K	Al		Fe	Al	Mn	Fe	Al	Mn		Zn	Cu	Ni	Pb
18285	Ahk	2840	220	82		16.18	0.077	0.058	0.0260	0.770	0.098	0.0950	19	62	13.0	13.0	6
18284	Ahk	2400	210	71		13.90	0.074	0.050	0.0170	0.720	0.095	0.0930	19	55	12.0	12.0	3
18283	Ahk	1890	170	39		10.88	0.078	0.044	0.0140	0.750	0.062	0.0750	36	41	10.0	9.6	3
18282	Ahk	1970	160	37		11.20	0.077	0.044	0.0140	0.500	0.062	0.0710	37	37	8.9	9.3	3
18281	Bk	1630	120	27		9.18	0.048	0.031	0.0058	0.390	0.041	0.0610	41	30	8.1	6.6	3
18280	Bk	1330	97	23		7.46	0.051	0.033	0.0066	0.390	0.041	0.0650	41	21	6.4	7.6	3
18279	Cgk	860	58	16		4.79	0.044	0.028	0.0053	0.360	0.038	0.0540	46	18	5.9	6.8	3
18278	Cgk	880	58	14		4.89	0.046	0.030	0.0054	0.370	0.035	0.0560	42	20	5.4	7.3	3

SOIL PROFILE INFORMATION

Horizon Depth



Site: Morrison Dam Conservation Area

Date: 81/06/16

Location Code: 1001207

Parent Material: till

UTM: 17T 463200.0 4800400.0

Vegetation: white pine

Classification: Orthic Gray Brown Luvisol

Landform: till plain

Comments: pine needle litter layer

Slope: level

Sample No.	Horizon	Depth (cm)	Colour	Sand (%)	Silt (%)	Clay (%)	pH (H ₂ O)	pH (CaCl ₂)	Organic C (%)	Total Nitrogen (mg/g)	Extr. S (ug/g)	Extr. SO ₄ (ug/g)	Avail. P (ug/g)	Total P (ug/g)	Avail. Al (ug/g)
18291	Ah	0-25	10YR 3/2	10	52	39	7.5	7.0	3	2.5			3		0.080
18290	Ah	0-25	10YR 3/2	11	57	32	7.4	6.9	2	2.3			3		0.080
18289	Ae	25-30	10YR 6/4	11	57	32	7.6	7.0	1	0.6			3		0.080
18288	Bt	30-35	5YR 4/4	5	36	59	7.6	7.0	1	0.5			3		0.080
18287	Bt	35-50	5YR 4/2	4	30	66	7.9	7.4	1	2.4			3		0.080
18286	Btk	35-50	5YR 4/2	16	29	54	7.9	7.4	1	0.8			3		0.080

SOIL PROFILE INFORMATION (cont'd.)

Site: Morrison Dam Conservation Area

Classification: Orthic Gray Brown Luvisol

Sample No.	Horizon	Exchangeable Cations (ug/g)				C.E.C. (m.e.) 100g	Pyrophosphate (%)			Dithionite (%)			CaCO ₃ (%)	Zn	Metals (ug/g)		
		Ca	Mg	K	Al		Fe	Al	Mn	Fe	Al	Mn			Cu	Ni	Pb
18291	Ah	2470	220	140		14.51	0.091	0.044	0.0140	0.840	0.13	0.039	1	51	10.0	13	14.0
18290	Ah	2190	210	160		13.04	0.091	0.046	0.0130	0.810	0.12	0.039	3	57	11.0	14	16.0
18289	Ae	1380	180	56		8.50	0.096	0.047	0.0035	0.760	0.11	0.026	1	41	8.8	14	8.5
18288	Bt	2100	210	74		12.36	0.120	0.043	0.0035	1.200	0.18	0.047	2	60	19.0	26	10.0
18287	Bt	2580	240	78		15.04	0.095	0.037	0.0040	1.300	0.19	0.056	2	75	25.0	33	11.0
18286	Btk	2640	210	79		15.10	0.079	0.020	0.0046	1.200	0.17	0.053	6	66	24.0	30	10.0

SOIL PROFILE INFORMATION

Horizon Depth

Site: Rondeau Provincial Park

Date: 81/08/10

Ahk 0

Location Code: 1001224

Parent Material: beach sand

20

UTM: 17T 430200.0 4685350.0

Vegetation: maple, beech, elm, birch,
grasses

Bmk 40

Classification: Orthic Melanic Brunisol

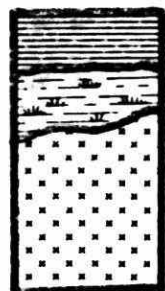
Ck 60

Landform: sand spit

Comments:

80

Slope: moderate slope



Sample No.	Horizon	Depth (cm)	Colour	Sand (%)	Silt (%)	Clay (%)	pH (H ₂ O)	pH (CaCl ₂)	Organic C (%)	Total Nitrogen (mg/g)	Extr. S (ug/g)	Extr. SO ₄ (ug/g)	Avail. P (ug/g)	Total P (ug/g)	Avail. Al (ug/g)
18369	Ahk	0-12	10YR 2/1	85	5	11	7.5	7.1	10	3.2			4		0.080
18368	Ahk	0-12	10YR 2/1	87	3	10	7.5	7.1	12	4.4			3		0.170
18367	Bmk	12-30	10YR 4/4	94	2	5	8.6	7.6	1	0.3			3		0.080
18366	Bmk	12-30	10YR 4/4	89	2	9	8.5	7.6	1	0.4			3		0.080
18365	Ck	30-45	5Y 6/1	95	0	5	8.8	7.7	1	0.2			3		0.080
18364	Ck	30-45	5Y 6/1	92	0	8	8.8	7.7	1	0.2			3		0.080
18363	Ck	45-65	5Y 6/1	93	0	8	8.7	7.7	1	0.1			3		0.080
18362	Ck	45-65	5Y 6/1	97	0	3	8.8	7.7	1	0.1			3		0.080

SOIL PROFILE INFORMATION (cont'd.)

Site: Rondeau Provincial Park

Classification: Orthic Melanic Brunisol

Sample No.	Horizon	Exchangeable Cations (ug/g)				C.E.C. (m.e.) 100g	Pyrophosphate (%)			Dithionite (%)			CaCO ₃ (%)	Zn	Metals (ug/g)			
		Ca	Mg	K	Al		Fe	Al	Mn	Fe	Al	Mn			Cu	Ni	Pb	
18369	Ahk	2890	190	48		16.13	0.087	0.043	0.0310	0.500	0.071	0.0440	5	120	83	11.0	45.0	
18368	Ahk	2470	160	46		13.74	0.110	0.052	0.0420	0.700	0.085	0.0610	7	150	96	12.0	51.0	
18367	Bmk	450	15	12		2.41	0.020	0.012	0.0043	0.270	0.020	0.0130	22	27	100	7.6	3.6	
18366	Bmk	570	18	18		3.04	0.020	0.012	0.0041	0.280	0.017	0.0120	21	27	80	8.2	3.0	
18365	Ck	310	10	12		1.64	0.019	0.009	0.0041	0.240	0.020	0.0110	21	26	72	12.0	5.5	
18364	Ck	340	9	16		1.84	0.017	0.009	0.0039	0.250	0.018	0.0110	20	30	100	7.7	7.5	
18363	Ck	230	7	19		1.25	0.021	0.009	0.0036	0.240	0.017	0.0120	23	22	37	6.2	7.9	
18362	Ck	250	8	16		1.35	0.023	0.012	0.0036	0.240	0.020	0.0120	21	19	25	6.2	4.3	

SOIL PROFILE INFORMATION

Horizon Depth Site: C.M. Wilson Conservation Area Date: 81/08/10

Ah 0 Location Code: 1001225 Parent Material: silty till

Bm 20 UTM: 17T 409100.0 4691700.0 Vegetation: maple, oak, elm

40 Classification: Orthic Eutric Brunisol

Ck 60 Landform: kame moraine Comments:

Slope: level

Sample No.	Horizon	Depth (cm)	Colour	Sand (%)	Silt (%)	Clay (%)	pH (H ₂ O)	pH (CaCl ₂)	Organic C (%)	Total Nitrogen (mg/g)	Extr. S (ug/g)	Extr. SO ₄ (ug/g)	Avail. P (ug/g)	Total P (ug/g)	Avail. Al (ug/g)
18376	Ah	0-9	5YR 2.5/2	33	41	27	7.1	6.7	3	3.7			5		0.210
18375	Ah	0-9	5YR 2.5/2	33	41	26	7.2	6.8	3	3.7			5		0.190
18374	Bm	10-15	10YR 4/6	38	44	19	7.2	6.5	1	1.2			3		0.760
18373	Bm	15-35	10YR 4/4	32	45	24	7.4	6.9	1	0.9			3		0.080
18372	Bm	15-35	10YR 4/4	32	37	30	7.6	6.9	1	0.9			3		0.080
18371	Ck	35-45	10YR 5/4	55	34	11	8.4	7.5	1	0.3			3		0.080
18370	Ck	35-45	10YR 5/4	44	40	16	8.2	7.5	1	0.4			3		0.080

SOIL PROFILE INFORMATION (cont'd.)

Site: C.M. Wilson Conservation Area

Classification: Orthic Eutric Brunisol

Sample No.	Horizon	Exchangeable Cations (ug/g)				C.E.C. (m.e.) 100g	Pyrophosphate (%)			Dithionite (%)			CaCO ₃ (%)	Metals (ug/g)			
		Ca	Mg	K	Al		Fe	Al	Mn	Fe	Al	Mn		Zn	Cu	Ni	Pb
18376	Ah	2490	370	100		15.66	0.140	0.087	0.0030	0.470	0.140	0.0059	1	40	13.0	9.7	3.4
18375	Ah	2490	350	130		15.56	0.110	0.085	0.0033	0.450	0.140	0.0069	2	32	6.6	6.7	13.0
18374	Bm	1020	300	24	4	7.60	0.120	0.140	0.0014	0.510	0.220	0.0050	2	30	5.6	8.7	6.0
18373	Bm	1130	300	26		8.10	0.110	0.085	0.0041	0.550	0.140	0.0110	2	30	6.6	9.2	3.3
18372	Bm	1360	500	28		10.84	0.140	0.088	0.0072	0.830	0.160	0.0190	2	39	8.6	12.0	7.3
18371	Ck	920	110	24		5.51	0.019	0.011	0.0028	0.430	0.045	0.0160	23	21	9.6	9.1	4.5
18370	Ck	1440	170	26		8.61	0.029	0.016	0.0038	0.420	0.054	0.0130	21	18	6.8	8.5	4.5

SOIL PROFILE INFORMATION

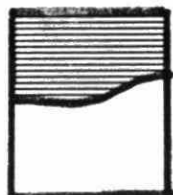
Horizon

Depth

Site: North Easthope Collector, Stratford

Date: 81/08/06

Ah



0

15

Location Code: 1001226

Parent Material: till

UTM: 17T 509850.0 4805750.0

Vegetation: grasses

Classification: Unclassified

Landform: till plain

Comments: APIOS rain collector site

Slope: level

Sample No.	Horizon	Depth (cm)	Colour	Sand (%)	Silt (%)	Clay (%)	pH (H ₂ O)	pH (CaCl ₂)	Organic C (%)	Total Nitrogen (mg/g)	Extr. S (ug/g)	Extr. SO ₄ (ug/g)	Avail. P (ug/g)	Total P (ug/g)	Avail. Al (ug/g)
18349	Ah	0-15	10YR 3/2	17	46	37	6.4	5.8	3	2.3			3		0.080
18348	Ah	0-15	10YR 3/2	17	50	34	6.5	5.8	3	2.5			5		0.080

SOIL PROFILE INFORMATION (cont'd.)

Site: North Easthope Collector, Stratford

Classification: Unclassified

Sample No.	Horizon	Exchangeable Cations (ug/g)				C.E.C. (m.e.) 100g	Pyrophosphate (%)			Dithionite (%)			CaCO3 (%)	Metals (ug/g)			
		Ca	Mg	K	Al		Fe	Al	Mn	Fe	Al	Mn		Zn	Cu	Ni	Pb
18349	Ah	1900	240	100		11.66	0.190	0.120	0.0150	0.860	0.170	0.0580	2	79	15	16	8.0
18348	Ah	1980	260	130		12.34	0.190	0.110	0.0170	0.840	0.170	0.0540	1	74	13	14	6.7

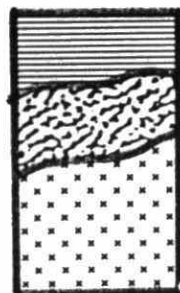
SOIL PROFILE INFORMATION

Horizon Depth

Site: Parkhill Conservation Area

Date: 81/08/06

Ap



0

Location Code: 1001227

Parent Material: lacustrine sand/till

20

UTM: 17T 447550.0 4778800.0

Vegetation: maple, beech, oak

Bmk

40

Classification: Orthic Melanic Brunisol

Landform: sand plain/till plain

Comments: iron stains throughout profile

Ck

60

Slope: level

Sample No.	Horizon	Depth (cm)	Colour	Sand (%)	Silt (%)	Clay (%)	pH (H ₂ O)	pH (CaCl ₂)	Organic C (%)	Total Nitrogen (mg/g)	Extr. S (ug/g)	Extr. SO ₄ (ug/g)	Avail. P (ug/g)	Total P (ug/g)	Avail. Al (ug/g)
18355	Ap	0-20	10YR 2/1	73	9	18	6.9	6.5	4	4.7			4		0.080
18354	Ap	0-20	10YR 2/1	66	10	24	7.1	6.8	3	5.0			5		0.080
18353	Bmk	20-35	10YR 6/6	65	4	31	8.7	7.7	1	0.1			3		0.090
18352	Bmk	20-35	10YR 6/6	87	3	10	8.6	7.7	1	0.1			3		0.080
18351	Ck	35-60	10YR 6/3	91	5	3	9.0	7.8	1	0.1			3		0.080
18350	Ck	35-60	10YR 6/3	80	4	16	9.0	7.8	1	0.1			5		0.080

SOIL PROFILE INFORMATION (cont'd.)

Site: Parkhill Conservation Area

Classification: Orthic Melanic Brunisol

Sample No.	Horizon	Exchangeable Cations (ug/g)				C.E.C. (m.e.) 100g	Pyrophosphate (%)			Dithionite (%)			CaCO ₃ (%)	Metals (ug/g)			
		Ca	Mg	K	Al		Fe	Al	Mn	Fe	Al	Mn		Zn	Cu	Ni	Pb
18355	Ap	2370	220	39		13.68	0.089	0.076	0.0340	0.540	0.120	0.1500	1	57.0	10.0	10.0	10
18354	Ap	3050	260	39		17.39	0.100	0.087	0.0430	0.500	0.110	0.1200	1	50.0	8.9	9.8	11
18353	Bmk	270	14	8		1.48	0.021	0.008	0.0011	0.280	0.025	0.0130	27	7.3	5.5	3.3	3
18352	Bmk	280	14	7		1.55	0.026	0.009	0.0013	0.250	0.022	0.0190	29	8.4	4.7	4.6	3
18351	Ck	210	11	7		1.15	0.017	0.008	0.0014	0.220	0.017	0.0085	32	8.9	5.1	2.6	3
18350	Ck	210	7	6		1.12	0.011	0.005	0.0013	0.190	0.014	0.0100	34	8.9	3.8	3.6	3

SOIL PROFILE INFORMATION

Horizon Depth

Site: Rock Glen Conservation Area

Date: 81/08/06

Ah



0

Location Code: 1001228

Parent Material: lacustrine clay

UTM: 17T 433400.0 4770450.0

Vegetation: pine, maple, elm, grasses

20

Classification: Gray Brown Luvisol

Bt

40

Landform: clay plain

Comments:

Slope: level

Sample No.	Horizon	Depth (cm)	Colour	Sand (%)	Silt (%)	Clay (%)	pH (H ₂ O)	pH (CaCl ₂)	Organic C (%)	Total Nitrogen (mg/g)	Extr. S (ug/g)	Extr. SO ₄ (ug/g)	Avail. P (ug/g)	Total P (ug/g)	Avail. Al (ug/g)
18359	Ah	0-20	10YR 3/2	54	23	23	6.5	5.8	3	2.0			3		0.080
18358	Ah	0-20	10YR 3/2	53	23	24	7.2	6.7	3	1.8			3		0.100
18357	Bt	20-35	7.5YR 4/4	24	27	49	7.7	6.9	1	0.8			3		0.080
18356	Bt	20-35	7.5YR 4/4	26	26	49	7.7	6.9	1	0.8			3		0.210

SOIL PROFILE INFORMATION (cont'd.)

Site: Rock Glen Conservation Area

Classification: Gray Brown Luvisol

Sample No.	Horizon	Exchangeable Cations (ug/g)				C.E.C. (m.e.) 100g	Pyrophosphate (%)			Dithionite (%)			CaCO ₃ (%)	Metals (ug/g)			
		Ca	Mg	K	Al		Fe	Al	Mn	Fe	Al	Mn		Zn	Cu	Ni	Pb
18359	Ah	400	300	120		4.67	0.140	0.046	0.0200	0.890	0.110	0.0280	1	78	16	19	22
18358	Ah	370	290	110		4.43	0.140	0.048	0.0210	0.860	0.099	0.0280	1	76	16	19	19
18357	Bt	340	380	95		4.98	0.097	0.040	0.0084	1.200	0.170	0.0350	1	82	31	39	14
18356	Bt	1780	390	93		12.30	0.062	0.028	0.0067	1.200	0.180	0.0350	1	74	30	36	11

SOIL PROFILE INFORMATION

Horizon	Depth	Site: Wheatley Provincial Park	Date: 80/06/04
Ahk	0	Location Code: 1001347	Parent Material: Port Stanley till
Bm	20	UTM: 17T 380500.0 4665000.0	Vegetation: grass
IC	40	Classification: Orthic Melanic Brunisol	
IIC	130	Landform: till plain	Comments: on cliff, eroded by Lake Erie waves
IIIC	190	Slope: nearly level	

Sample No.	Horizon	Depth (cm)	Colour	Sand (%)	Silt (%)	Clay (%)	pH (H ₂ O)	pH (CaCl ₂)	Organic C (%)	Total Nitrogen (mg/g)	Extr. S (ug/g)	Extr. SO ₄ (ug/g)	Avail. P (ug/g)	Total P (ug/g)	Avail. Al (ug/g)
9120	Ahk	0-20	10YR 3/1	51	22	27	8.34	7.73	1.48	0.87		12.4		430	
9121	Ahk	0-20	10YR 3/1	43	29	28	7.79	7.55	1.58	1.26		13.5		370	
9118	Bm	20-35	10YR 4/4	18	36	45	6.39	5.71	0.57	0.71		16.4		320	
9119	Bm	20-35	10YR 4/4	19	36	46	6.68	6.25	0.59	0.78		12.9		380	
9116	IC	40	10YR 6/3	9	35	56	7.01	6.38	0.52	0.88		19.1		520	
9117	IC	40	10YR 6/3	12	34	54	7.69	7.29	0.59	0.93		14.3		670	
9114	IICk	130	7.5YR 4/4	31	33	35	8.57	7.86	0.74	0.52		10.0		590	
9115	IICk	130	7.5YR 4/4	14	40	46	8.57	7.86	0.33	0.60		10.5		480	
9113	IIICk	190	7.5YR 4/4	31	33	36	8.62	7.88	0.31	0.55		22.9		550	
9122	IVCk	300	10YR 6/3	24	35	41	8.21	7.86	0.47	0.59		49.6		540	
9123	IVCk	600	10YR 6/2	17	38	45	8.20	7.88	0.69	0.59				620	

SOIL PROFILE INFORMATION (cont'd.)

Site: Wheatley Provincial Park

Classification: Orthic Melanic Brunisol

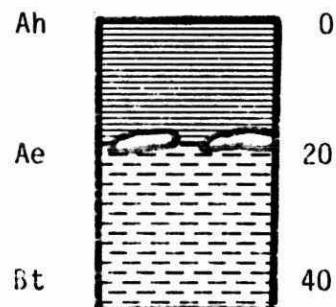
Sample No.	Horizon	Exchangeable Cations (ug/g)				C.E.C. (m.e.) 100g	Pyrophosphate (%)			Dithionite (%)			CaCO ₃ (%)	Metals (ug/g)			
		Ca	Mg	K	Al		Fe	Al	Mn	Fe	Al	Mn		Zn	Cu	Ni	Pb
9120	Ahk	1452	37	105		7.80	0.07	0.02	0.0064	1.10	0.09	0.046	14	75	53	18	44.0
9121	Ahk	2002	79	84		10.24	0.02	0.00	0.0047	1.10	0.11	0.043	8	86	36	18	45.0
9118	Bm	1803	228	80		11.02	0.22	0.07	0.0013	1.80	0.22	0.018	1	100	36	32	11.0
9119	Bm	1434	239	85		9.22	0.12	0.03	0.0080	1.60	0.21	0.021	2	100	44	33	12.0
9116	IC	2906	433	84		18.19	0.19	0.06	0.0016	1.80	0.22	0.065	1	100	46	52	12.0
9117	IC	3607	400	73		21.40	0.01	0.03	0.0028	1.80	0.21	0.052	1	106	44	50	10.0
9114	IICk	1914	233	42		11.52	0.01	0.01	0.0037	1.10	0.09	0.034	23	61	40	30	7.6
9115	IICk	1845	245	37		11.24	0.01	0.00	0.0039	1.10	0.11	0.038	22	64	51	30	9.0
9113	IIICk	1345	347	47		9.60	0.02	0.01	0.0037	1.00	0.07	0.034	28	58	41	28	7.0
9122	IVCk	1845	200	63		10.94	0.03	0.01	0.0036	1.20	0.11	0.037	16	83	50	34	14.0
9123	IVCk	2981	840	102		12.02	0.06	0.02	0.0031	0.94	0.06	0.027	22	86	69	38	10.0

SOIL BASELINE ANALYTICAL DATA, 1980-1981

WEST CENTRAL REGION

SOIL PROFILE INFORMATION

Horizon Depth



Site: Nanticoke Seedling Plot, A + B1

Date: 80/09/08

Location Code: 2001001

Parent Material: lacustrine clay

UTM: 17T 575400.0 4739750.0

Vegetation: eastern white pine, white birch
white ash

Classification: Orthic Gray Brown Luvisol

Landform: clay plain

Comments: irregular, discontinuous Ae

Slope: level

Sample No.	Horizon	Depth (cm)	Colour	Sand (%)	Silt (%)	Clay (%)	pH (H ₂ O)	pH (CaCl ₂)	Organic C (%)	Total Nitrogen (mg/g)	Extr. S (ug/g)	Extr. SO ₄ (ug/g)	Avail. P (ug/g)	Total P (ug/g)	Avail. Al (ug/g)
9801	Ah	0-15	10YR 4/2	10	45	44	6.35	5.80	4.66	3.12		21.0		800	
9802	Ah	0-15	10YR 4/2	7	45	48	6.39	5.81	4.32	3.06		17.0		760	
9797	Ae	18-20	10YR 5/4	5	35	60	5.96	5.53	1.04	0.88		11.0		570	
9798	Ae	18-20	10YR 5/4	9	42	49	6.08	5.52	1.61	1.47		11.0		710	
9799	Bt	25	7.5YR 5/4	4	25	71	5.85	5.32	0.81	0.94		12.0		660	
9800	Bt	25	7.5YR 5/4	4	24	71	5.82	5.36	0.80	0.93		13.0		630	
9795	Bt	35	7.5YR 5/4	2	16	82	5.98	5.68	0.76	0.90		21.0		670	
9796	Bt	35	7.5YR 5/4	2	17	81	5.77	5.45	0.64	0.84		19.0		710	

SOIL PROFILE INFORMATION (cont'd.)

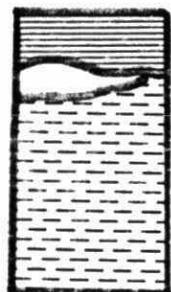
Site: Nanticoke Seedling Plot, A + B1

Classification: Orthic Gray Brown Luvisol

Sample No.	Horizon	Exchangeable Cations (ug/g)				C.E.C. (m.e.) 100g	Pyrophosphate (%)			Dithionite (%)			CaCO ₃ (%)	Metals (ug/g)			
		Ca	Mg	K	Al		Fe	Al	Mn	Fe	Al	Mn		Zn	Cu	Ni	Pb
9801	Ah	2904	176.5	137.3		16.27	0.21	0.08	0.4900	1.1	0.15	0.100	3	110	17	22	31
9802	Ah	2867	166.9	127.2		16.00	0.21	0.08	0.0440	1.2	0.16	0.110	3	100	16	22	29
9797	Ae	2499	200.9	107.1		14.38	0.19	0.08	0.0067	1.5	0.19	0.058	1	110	25	34	16
9798	Ae	1982	167.4	77.6		11.44	0.20	0.08	0.0130	1.3	0.17	0.072	2	97	20	26	18
9799	Bt	3097	304.0	130.0	0.22	18.28	0.16	0.08	0.0036	1.6	0.21	0.039		110	33	37	11
9800	Bt	2704	272.0	130.0	0.21	16.28	0.17	0.08	0.0047	1.7	0.23	0.050	4	110	32	42	16
9795	Bt	3481	316.6	142.4		20.29	0.12	0.06	0.0050	1.9	0.24	0.053	2	120	39	48	12
9796	Bt	3689	402.0	176.0	1.10	22.06	0.11	0.06	0.0032	2.0	0.25	0.045	1	120	40	48	15

SOIL PROFILE INFORMATION

Horizon	Depth	Site: Nanticoke A and B1	Date: 81/08/12
Ah	0	Location Code: 2001001	Parent Material: clay
Ae	20	UTM: 17T 575400.0 4739750.0	Vegetation: white pine, white ash, white birch
Btj	40	Classification: Orthic Gray Brown Luvisol	
		Landform: clay plain	Comments: plentiful earthworms
Btk	60	Slope: simple, class 1, level	



Sample No.	Horizon	Depth (cm)	Colour	Sand (%)	Silt (%)	Clay (%)	pH (H ₂ O)	pH (CaCl ₂)	Organic C (%)	Total Nitrogen (mg/g)	Extr. S (ug/g)	Extr. SO ₄ (ug/g)	Avail. P (ug/g)	Total P (ug/g)	Avail. Al (ug/g)
17548	Ah	0-18	10YR 3/1	24	38	39	6.0	5.0	4	3.8			20		0.430
17547	Ah	0-18	10YR 3/1	10	44	46	6.0	5.2	4	3.7			18		0.360
17546	Ae	18-20	10YR 6/4	8	29	63	5.6	4.8	1	1.1			16		0.410
17545	Ae	18-20	10YR 6/4	11	38	51	5.7	4.8	2	1.2			13		0.180
17544	Btj	25	10YR 5/4	2	32	66	5.9	5.0	1	1.0			15		0.080
17543	Btj	25	10YR 5/4	3	18	79	5.9	4.9	1	1.0			17		0.080
17542	Btk	40	10YR 5/4	1	18	81	8.2	7.5	1	0.9			6		0.080
17541	Btk	40	10YR 5/4	1	17	83	7.8	7.3	1	1.0			3		0.080

SOIL PROFILE INFORMATION (cont'd.)

Site: Nanticoke A and B1

Classification: Orthic Gray Brown Luvisol

Sample No.	Horizon	Exchangeable Cations (ug/g)				C.E.C. (m.e.) 100g	Pyrophosphate (%)			Dithionite (%)			CaCO ₃ (%)	Metals (ug/g)			
		Ca	Mg	K	Al		Fe	Al	Mn	Fe	Al	Mn		Zn	Cu	Ni	Pb
17548	Ah	3010	200	170	2	17.13							1				
17547	Ah	2790	180	190	2	9.37							2				
17546	Ae	1690	170	120	11	10.20											
17545	Ae	1580	120	130	4	5.58											
17544	Btj	3380	310	170	4	19.86							0				
17543	Btj	3440	290	160	14	11.88											
17542	Btk	4960	260	140		27.20							7				
17541	Btk	4140	280	140		13.31							6				

SOIL PROFILE INFORMATION

Horizon	Depth	Site: Delhi	Date: 80/04/01
Ah	0	Location Code: 2001002	Parent Material: deltaic sand
Bm	10	UTM: 17T 541100.0 4724650.0	Vegetation: grass, pine, oak
C	50	Classification: Orthic Melanic Brunisol	Comments: cliff in farmer's field
		Landform: sand plain	
		Slope: level	



Sample No.	Horizon	Depth (cm)	Colour	Sand (%)	Silt (%)	Clay (%)	pH (H ₂ O)	pH (CaCl ₂)	Organic C (%)	Total Nitrogen (mg/g)	Extr. S (ug/g)	Extr. SO ₄ (ug/g)	Avail. P (ug/g)	Total P (ug/g)	Avail. Al (ug/g)
9003	Ah	0-10	10YR 3/2	90	3	7	6.63	5.82	1.86	1.28		8.9		600	
9002	Bm	10-30	2.5YR 5/4	87	4	9	5.71	4.71	0.97	0.94		9.1		900	
9001	C	45+	5YR 6/6	92	3	5	6.53	5.67	0.17	0.29		7.8		780	

SOIL PROFILE INFORMATION (cont'd.)

Site: Delhi

Classification: Orthic Melanic Brunisol

Sample No.	Horizon	Exchangeable Cations (ug/g)				C.E.C. (m.e.) 100g	Pyrophosphate (%)			Dithionite (%)			CaCO ₃ (%)	Metals (ug/g)			
		Ca	Mg	K	Al		Fe	Al	Mn	Fe	Al	Mn		Zn	Cu	Ni	Pb
9003	Ah	941	79	51.0		5.46	0.07	0.09	0.044	0.37	0.13	0.055	1	78	14	6.6	15.0
9002	Bm	337	107	22.0	6	2.63	0.11	0.15	0.053	0.40	0.17	0.064		57	11	36.0	5.6
9001	C	165	184	8.4		1.04	0.09	0.12	0.012	0.40	0.16	0.020	1	42	11	21.0	7.0

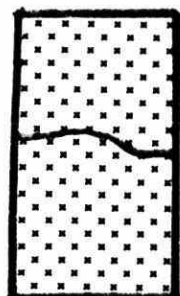
SOIL PROFILE INFORMATION

Horizon Depth

Site: Long Point Provincial Park

Date: 80/04/01

Ak/Ck



0

Location Code: 2001003

Parent Material: lacustrine sand

10

UTM: 17T 550600.0 4713650.0

Vegetation: grass, pines

Classification: Orthic Regosol

Landform: beach/shoreline

Comments: little noticeable change down the profile, 200 ft. from lake

Ck

30

Slope: gently sloping

Sample No.	Horizon	Depth (cm)	Colour	Sand (%)	Silt (%)	Clay (%)	pH (H ₂ O)	pH (CaCl ₂)	Organic C (%)	Total Nitrogen (mg/g)	Extr. S (ug/g)	Extr. SO ₄ (ug/g)	Avail. P (ug/g)	Total P (ug/g)	Avail. Al (ug/g)
9005	Ak/Ck	0-15	10YR 4/1	90	2	9	8.45	7.85	0.16	0.23		4.9		560	
9004	Ck	30+	10YR 6/1	92	1	7	8.70	7.81	0.05	0.08		3.9		500	

SOIL PROFILE INFORMATION (cont'd.)

Site: Long Point Provincial Park

Classification: Orthic Regosol

Sample No.	Horizon	Exchangeable Cations (ug/g)				C.E.C. (m.e.) 100g	Pyrophosphate (%)			Dithionite (%)			CaCO ₃ (%)	Metals (ug/g)			
		Ca	Mg	K	Al		Fe	Al	Mn	Fe	Al	Mn		Zn	Cu	Ni	Pb
9005	Ak/Ck	290	5	8.4		1.50	0.02	0.01	0.003	0.2	0.016	0.010	21	23	8.5	68	5.9
9004	Ck	165	5	4.2		0.86	0.02	0.01	0.003	0.3	0.016	0.009	21	18	7.1	49	1.6

SOIL PROFILE INFORMATION

Horizon Depth

Site: Harriston

Date: 80/05/15

Ah

0

Location Code: 2001005

Parent Material: fluvial outwash

Bfj

UTM: 17T505200.0 4865800.0

Vegetation: maple, grass

Ick

50

Classification: Orthic Melanic Brunisol

Landform: spillway

Comments: gravel pit, dry colors, stratified lens, earthworms in top, stoney

IICK

100

Slope: nearly level



Sample No.	Horizon	Depth (cm)	Colour	Sand (%)	Silt (%)	Clay (%)	pH (H ₂ O)	pH (CaCl ₂)	Organic C (%)	Total Nitrogen (mg/g)	Extr. S (ug/g)	Extr. SO ₄ (ug/g)	Avail. P (ug/g)	Total P (ug/g)	Avail. Al (ug/g)
9019	Ah	0-20	7.5YR 3/2	26.5	50.9	22.7	7.86	7.43	1.76	1.64		11.4		430	
9018	Bfj	20-50	10YR 4/4	23.5	54.8	21.7	7.95	7.40	0.72	0.79		10.4		270	
9017	Ick	70-100	10YR 5/3	54.7	35.1	10.3	8.70	8.03	0.07	0.16				210	
9016	IICK	110+	10YR 6/3	74.8	17.5	7.8	8.66	7.85	0.13	0.23		5.3		250	
9022	Ah	0-20		31.9	36.1	32.0	7.43	6.69	2.13	2.14		12.6		490	
9021	Bfj	40		21.8	60.5	17.7	7.43	6.71	0.67	0.59		7.4		390	
9020	Bm	50+		20.2	60.5	19.3	7.34	6.66	0.35	0.36		6.9		290	
9023	Ah	0-10		37.0	41.0	21.9	6.78	6.25	5.05	2.79		13.8		160	
9024	Bf	10-30		37.7	47.8	14.5	6.06	5.15	2.65	1.29		9.8		180	
9025	Bm/Ck	60+		21.5	52.2	26.3	7.54	6.96	0.77	0.62		17.9		370	

SOIL PROFILE INFORMATION (cont'd.)

Site: Harriston

Classification: Orthic Melanic Brunisol

Sample No.	Horizon	Exchangeable Cations (ug/g)				C.E.C. (m.e.) 100g	Pyrophosphate (%)			Dithionite (%)			CaCO ₃ (%)	Metals (ug/g)			
		Ca	Mg	K	Al		Fe	Al	Mn	Fe	Al	Mn		Zn	Cu	Ni	Pb
9019	Ah	1622	445	51		11.78	0.13	0.06	0.0083	1.00	0.150	0.060	2	54	13.0	10.0	12.0
9018	Bfj	1035	255	13		7.24	0.28	0.14	0.0066	1.10	0.210	0.040	1-2	45	9.8	11.0	8.4
9017	Ick	325	66	13		2.18	0.01	0.00	0.0015	0.59	0.027	0.012	63	21	17.0	14.0	5.4
9016	IICK	366	70	17		2.43	0.02	0.00	0.0019	0.66	0.040	0.020	61	40	19.0	16.0	6.2
9022	Ah	1645	413	51		11.65	0.15	0.08	0.0091	0.90	0.16	0.042	0	51	12.0	9.7	12.0
9021	Bfj	881	206	13		6.08	0.24	0.17	0.0058	0.27	0.20	0.032	0	34	8.5	10.0	6.8
9020	Bm	975	267	17		5.03	0.14	0.11	0.0054	0.95	0.14	0.050	1-2	34	13.0	14.0	7.7
9023	Ah	1924	738	43		15.60	0.35	0.19	0.0047	1.1	0.26	0.011	1-2	42	10.0	67.0	13.0
9024	Bf	872	327	22	10	7.14	0.42	0.36	0.0017	1.1	0.40	0.005	1-2	42	11.0	10.0	7.6
9025	Bm/Ck	1254	529	30		10.60	0.13	0.11	0.0069	1.2	0.25	0.034	5	46	27.0	24.0	9.1

SOIL PROFILE INFORMATION

Horizon Depth

Site: Nanticoke Seedling Plot, C-4

Date: 80/09/26

Ah

0

Location Code: 2001109

Parent Material: lacustrine clay

UTM: 17T 553750.0 4738550.0

Vegetation: eastern white pine, white birch,
white ash

Btg

20

Classification: Humic Luvic Gleysol

Landform: clay plain

Comments: depth to watertable 35 cm. mottles
(10YR 5/2) in Btg

40

Slope: level



Sample No.	Horizon	Depth (cm)	Colour	Sand (%)	Silt (%)	Clay (%)	pH (H ₂ O)	pH (CaCl ₂)	Organic C (%)	Total Nitrogen (mg/g)	Extr. S (ug/g)	Extr. SO ₄ (ug/g)	Avail. P (ug/g)	Total P (ug/g)	Avail. Al (ug/g)
9887	Ah	0-15	10YR 3/2	9	46	46	6.33	5.83	6.78	6.23		29		1560	
9888	Ah	0-15	10YR 3/2	7	36	57	6.33	5.81	6.30	4.64		23		1250	
9889	Btg	25	10YR 5/2	4	47	49	6.24	5.92	0.97	1.09		18		460	
9890	Btg	25	10YR 5/2	9	2	90	6.24	5.98	1.24	1.27		18		570	

SOIL PROFILE INFORMATION (cont'd.)

Site: Nanticoke Seedling, Plot, C-4

Classification: Humic Luvis Gleysol

Sample No.	Horizon	Exchangeable Cations (ug/g)				C.E.C. (m.e.) 100g	Pyrophosphate (%)			Dithionite (%)			CaCO ₃ (%)	Metals (ug/g)			
		Ca	Mg	K	Al		Fe	Al	Mn	Fe	Al	Mn		Zn	Cu	Ni	Pb
9887	Ah	4209	604	189		26.31	0.37	0.20	0.0360	1.8	0.26	0.150	3	140	24	29	26
9888	Ah	4056	576	131		25.24	0.38	0.19	0.0320	1.7	0.26	0.140	3	150	33	30	26
9889	Btg	2795	626	106		19.27	0.19	0.08	0.0037	1.9	0.20	0.037	2	120	27	38	12
9890	Btg	2508	610	114		17.71	0.23	0.09	0.0047	1.8	0.19	0.052	3	120	25	36	12

SOIL PROFILE INFORMATION

Horizon Depth

Site: Grimsby Beach

Date: 80/05/27

Ah

0

Location Code: 2001010

Parent Material: silty/clay till

Bm

30

UTM: 17T 619550.0 4783000.0

Vegetation: oak, sugar maple

Classification: Orthic Sombric Brunisol

Landform: shale plain

Comments: municipal lot behind Grand Ave.
School, possibly disturbed

C

60

Slope: level

Sample No.	Horizon	Depth (cm)	Colour	Sand (%)	Silt (%)	Clay (%)	pH (H ₂ O)	pH (CaCl ₂)	Organic C (%)	Total Nitrogen (mg/g)	Extr. S (ug/g)	Extr. SO ₄ (ug/g)	Avail. P (ug/g)	Total P (ug/g)	Avail. Al (ug/g)
9061	Ah	0-15	7.5YR 4/2	29	44	30	5.88	5.21	4.00	2.76		29.7		880	
9060	Bm ₁	25	5YR 4/4	21	48	31	5.16	4.25	0.59	0.55		18.6		580	
9059	Bm ₂	45	5YR 6/3	13	52	35	5.47	4.76	0.21	0.51		23.3		680	
9058	C	55+	10YR 3/4	7	52	41	7.50	7.06	0.15	0.59		37.7		680	
9065	Ah	0-15	7.5YR 4/2	26	47	27	5.57	5.04	3.55	2.26		23.5		580	
9064	Bm ₁	25	5YR 4/4	15	58	26	5.13	4.94	0.67	0.67		17.1		480	
9063	Bm ₂	45	5YR 6/3	12	59	29	5.39	4.62	0.27	0.48		19.4		760	
9062	C	55+	10YR 3/4	8	54	38	7.27	6.85	0.12	0.61		45.3		700	

SOIL PROFILE INFORMATION (cont'd.)

Site: Grimsby Beach

Classification: Orthic Sombric Brunisol

Sample No.	Horizon	Exchangeable Cations (ug/g)				C.E.C. (m.e.) 100g	Pyrophosphate (%)			Dithionite (%)			CaCO ₃ (%)	Metals (ug/g)			
		Ca	Mg	K	Al		Fe	Al	Mn	Fe	Al	Mn		Zn	Cu	Ni	Pb
9061	Ah	1783	293	136	1.0	11.61	0.35	0.14	0.0300	1.20	0.19	0.140	1-2	95	24	18	38.0
9060	Bm ₁	367	86	63	228.0	4.96	0.24	0.10	0.0092	1.30	0.14	0.058		66	23	21	3.7
9059	Bm ₂	1154	267	47	59.0	3.42	0.09	0.05	0.0037	0.86	0.08	0.047		73	19	29	7.0
9058	C	1981	334	37		12.66	0.05	0.02	0.0034	2.10	0.07	0.024	1-2	78	14	37	4.1
9065	Ah	1760	303	136	1.7	11.58	0.35	0.12	0.0790	1.1	0.17	0.110		90	29	18	34.0
9064	Bm ₁	449	106	47	185.0	5.06	0.24	0.09	0.0060	1.3	0.12	0.030		68	15	23	4.8
9063	Bm ₂	1057	240	58	53.0	3.12	0.12	0.05	0.0051	1.1	0.08	0.046		75	35	31	6.6
9062	C	1981	328	31		12.59	0.05	0.01	0.0032	2.2	0.08	0.030	1-2	84	25	39	5.2

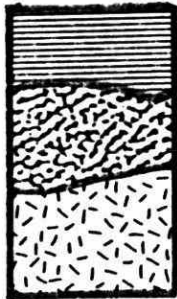
SOIL PROFILE INFORMATION

Horizon Depth

Site: Grimsby Beach

Date: 81/05/20

Ah



0

Location Code: 2001010

Parent Material: Queenston shale

20

UTM: 17T 619550.0 4783000.0

Vegetation: oak, maple

Bm

40

Classification: Orthic Sombric Brunisol

C

60

Landform: shale plain

Comments: site disturbed, resurvey
possibly abandoned garbage dump

Slope: level

Sample No.	Horizon	Depth (cm)	Colour	Sand (%)	Silt (%)	Clay (%)	pH (H ₂ O)	pH (CaCl ₂)	Organic C (%)	Total Nitrogen (mg/g)	Extr. S (ug/g)	Extr. SO ₄ (ug/g)	Avail. P (ug/g)	Total P (ug/g)	Avail. Al (ug/g)
17175	Ah	0-25	5YR 3/1				6.2	5.8							0.22
17174	Ah	0-25	5YR 3/1				6.1	5.8							0.19
17173	Bm	20-35	2.5YR 5/4				5.1	4.1							1.10
17172	Bm	20-35	2.5YR 5/4				5.1	4.3							1.10
17171	C	50	2.5YR 4/4				5.7	4.7							0.09
17170	C	50	5Y 7/3				6.7	5.7							0.08

SOIL PROFILE INFORMATION (cont'd.)

Site: Grimbsy Beach

Classification: Orthic Sombric Brunisol

Sample No.	Horizon	Exchangeable Cations (ug/g)				C.E.C. (m.e.) 100g	Pyrophosphate (%)			Dithionite (%)			CaCO ₃ (%)	Metals (ug/g)			
		Ca	Mg	K	Al		Fe	Al	Mn	Fe	Al	Mn		Zn	Cu	Ni	Pb
17175	Ah	3060	460	160		19.41							1				
17174	Ah	3160	430	130		19.57							3				
17173	Bm	1380	230	67	100	9.94											
17172	Bm	1720	230	72	120	11.87											
17171	C	1620	250	79	8	10.38											
17170	C	2000	310	77		12.64							1				

SOIL PROFILE INFORMATION

Horizon	Depth	Site: Ball's Falls Conservation Area	Date: 80/05/27
Oh	0	Location Code: 20010011	Parent Material: till on Niagara Escarpment
Ae		UTM: 17T 631300.0 4776300.0	Vegetation: sugar maple
Bfj	20	Classification: Gleyed Eluviated Sombric Brunisol	
Bm		Landform: till moraine/limestone plain	Comments: mottles at 40 cm (10YR 5/8), orchards nearby
Cg	50	Slope: nearly level	



Sample No.	Horizon	Depth (cm)	Colour	Sand (%)	Silt (%)	Clay (%)	pH (H ₂ O)	pH (CaCl ₂)	Organic C (%)	Total Nitrogen (mg/g)	Extr. S (ug/g)	Extr. SO ₄ (ug/g)	Avail. P (ug/g)	Total P (ug/g)	Avail. Al (ug/g)
9070	Oh	0-15	7.5Y2.5/0	22	51	26	4.43	4.04	17.90	5.71		43.1		480	
9069	Ae	11	5YR 6/1	20	65	15	4.80	3.81	1.18	0.68		10.4		140	
9068	Bfj	13-15	10YR 3/4	17	68	15	4.86	4.00	1.12	1.26		15.4		340	
9067	Bm	25-40+	10YR 6/4	22	61	17	5.26	4.28	0.56	0.38		13.7		230	
9066	Cg	40+	5YR 6/3	34	54	22	5.45	4.55	0.15	0.33		24.1		330	
9071	Ah	0-15		15	61	24	4.63	4.28	11.90	4.96		49.2		530	
9072	Bfj	25-40		18	65	17	4.96	4.29	1.00	0.69		14.1		270	
9073	Cg	40+		24	55	21	5.16	4.31	0.37	0.39		17.3		210	

SOIL PROFILE INFORMATION (cont'd.)

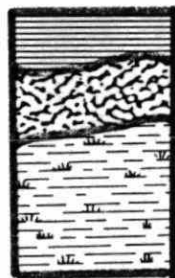
Site: Ball's Falls Conservation Area

Classification: Gleyed Eluviated Sombric Brunisol

Sample No.	Horizon	Exchangeable Cations (ug/g)				C.E.C. (m.e.) 100g	Pyrophosphate (%)			Dithionite (%)			CaCO ₃ (%)	Metals (ug/g)			
		Ca	Mg	K	Al		Fe	Al	Mn	Fe	Al	Mn		Zn	Cu	Ni	Pb
9070	Oh	3286	555	157	191	23.13	0.34	0.18	0.0160	0.61	0.190	0.020		73	34	20.0	57.0
9069	Ae	467	132	54	327	5.80	0.11	0.05	0.0004	0.28	0.053	0.002		15	23	2.3	1.1
9068	Bfj	386	101	53	323	6.08	0.49	0.20	0.0009	1.00	0.210	0.003		33	31	6.4	2.9
9067	Bm	204	46	47	205	3.56	0.27	0.13	0.0001	0.84	0.130	0.008		50	25	17.0	6.9
9066	Cg	470	101	42		3.34	0.18	0.06	0.0012	1.40	0.120	0.020		58	39	21.0	10.0
9071	Ah	2308	417	178	49	15.76	0.40	0.16	0.0150	0.73	0.170	0.018		63	54	17.0	38.0
9072	Bfj	174	41	42	241	3.71	0.31	0.16	0.0012	0.82	0.160	0.009		55	52	18.0	8.8
9073	Cg	376	86	37	177	4.42	0.19	0.08	0.0008	1.10	0.120	0.016		55	42	20.0	8.7

SOIL PROFILE INFORMATION

Horizon	Depth	Site: Ball's Falls Conservation Area	Date: 81/05/20
Ah	0	Location Code: 2001011	Parent Material: till, niagara escarpment
Bm	20	UTM: 17T 631300.0 4776300.0	Vegetation: maple, oak
	40	Classification: Gleyed Eluviated Sombric Brunisol	
C _g	60	Landform: limestone outcrop/moraine	Comments: slightly mottled at 50 cm, resurvey
		Slope: level	



Sample No.	Horizon	Depth (cm)	Colour	Sand (%)	Silt (%)	Clay (%)	pH (H ₂ O)	pH (CaCl ₂)	Organic C (%)	Total Nitrogen (mg/g)	Extr. S (ug/g)	Extr. SO ₄ (ug/g)	Avail. P (ug/g)	Total P (ug/g)	Avail. Al (ug/g)
17169	Ah	0-14	10YR 3/1	25	39	37	5.3	4.7	5	4.6			19		5.5
17168	Ah	0-14	10YR 3/1	18	56	26	5.1	4.3	4	3.5			11		7.8
17167	Bm	20	10YR 6/3	17	61	23	4.8	4.0	1	0.7			3		15.0
17166	Bm	20	10YR 6/3	32	36	32	4.7	4.1	1	0.7			3		18.0
17165	Bm	30	10YR 5/3	20	53	27	4.9	4.1	1	0.4			3		9.7
17164	Bm	30	10YR 5/3	21	52	26	4.8	4.1	1	0.3			3		11.0
17163	Cg	50	10YR 5/4	26	41	33	4.9	4.1	1	0.4			3		4.8
17162	Cg	50	10YR 5/4	28	41	31	4.9	4.1	1	0.4			3		4.3

SOIL PROFILE INFORMATION (cont'd.)

Site: Ball's Falls Conservation Area

Classification: Gleyed Eluviated Sombric Brunisol

Sample No.	Horizon	Exchangeable Cations (ug/g)				C.E.C. (m.e.) 100g	Pyrophosphate (%)			Dithionite (%)			CaCO ₃ (%)	Metals (ug/g)			
		Ca	Mg	K	Al		Fe	Al	Mn	Fe	Al	Mn		Zn	Cu	Ni	Pb
17169	Ah	1940	310	180	11	12.76											
17168	Ah	1570	180	120	34	9.95											
17167	Bm	250	32	60	160	3.26											
17166	Bm	190	30	62	180	3.12											
17165	Bm	370	58	51	140	3.86											
17164	Bm	300	46	60	180	3.84											
17163	Cg	590	88	46	160	5.38											
17162	Cg	550	100	53	160	5.32											

SOIL PROFILE INFORMATION

Horizon Depth

Site: Nelles Beach

Date: 80/05/28

Ah/Bm 0

Location Code: 2001012

Parent Material: lacustrine silt

IC 100

UTM: 17T 618550.0 4783700.0

Vegetation: grass, orchard

IIC 150

Classification: Orthic Melanic Brunisol

IIIC 200

Landform: sand plain/shale plain

Comments: on 50 m cliff by Lake Ontario

IVck 300

Slope: very strong slopes

Sample No.	Horizon	Depth (cm)	Colour	Sand (%)	Silt (%)	Clay (%)	pH (H ₂ O)	pH (CaCl ₂)	Organic C (%)	Total Nitrogen (mg/g)	Extr. S (ug/g)	Extr. SO ₄ (ug/g)	Avail. P (ug/g)	Total P (ug/g)	Avail. Al (ug/g)
9078	Ah/Bm	0-30	10YR 5/4	19	65	16	6.79	6.20	1.22	1.36		13.1		860	
9081	Ah/Bm	0-30	10YR 5/4	16	66	18	6.76	6.22	1.28	1.31		14.6		860	
9080	IC	145	5YR 4/4	19	65	16	5.63	4.91	0.11	0.30		37.9		690	
9077	IC	145	5YR 4/4	23	68	9	5.66	4.97	0.11	0.25		51.2		980	
9076	IIC	180	5YR 4/4	19	75	6	7.06	6.48	0.03	0.18		18.5		800	
9079	IIC	180	5YR 4/4	29	61	10	6.95	6.26	0.03	0.26		20.2		770	
9075	IIIC	200	7.5YR 4/4	80	13	6	7.78	6.73	0.07	0.14		9.1		720	
9074	IVck	290	5YR 4/1	5	67	27	8.27	7.70	0.23	0.38		77.9		800	

SOIL PROFILE INFORMATION (cont'd.)

Site: Nelles Beach

Classification: Orthic Melanic Brunisol

Sample No.	Horizon	Exchangeable Cations (ug/g)				C.E.C. (m.e.) 100g	Pyrophosphate (%)			Dithionite (%)			CaCO ₃ (%)	Metals (ug/g)			
		Ca	Mg	K	Al		Fe	Al	Mn	Fe	Al	Mn		Zn	Cu	Ni	Pb
9078	Ah/Bm	789	184	157		5.79	0.12	0.05	0.0140	0.73	0.10	0.034	1-2	70	36	15	30.0
9081	Ah/Bm	1044	200	146		7.16	0.12	0.04	0.0160	0.69	0.10	0.034	1	67	33	15	31.0
9080	IC	587	86	17	8.00	3.75	0.08	0.02	0.0019	0.93	0.06	0.061		45	31	18	4.0
9077	IC	620	91	22	4.95	3.94	0.10	0.03	0.0024	1.00	0.09	0.064		44	31	18	4.5
9076	IIC	747	152	10		4.96	0.01	0.00	0.0004	0.79	0.06	0.058	1-2	40	22	17	4.0
9079	IIC	779	173	10			0.02	0.01	0.0011	0.88	0.06	0.067	1	42	24	16	4.1
9075	IIIC	495	81	10		3.13	0.02	0.01	0.0007	0.76	0.06	0.070	1-2	38	38	14	3.1
9074	IVCk	789	116	63		5.01	0.02	0.00	0.0069	0.45	0.22	0.025	18	61	54	25	7.5

SOIL PROFILE INFORMATION

Horizon	Depth	Site: Chippawa Creek Conservation Area	Date: 80/05/28
Ah	0	Location Code: 2001013	Parent Material: fluvial clay
Ae	30	UTM: 17T 620850.0 4761300.0	Vegetation: maple, oak, grass
Bmg		Classification: Orthic Humic Gleysol	
Ckg	60	Landform: clay plain	Comments: many coarse mottles (7.5YR 5/8), water seeping in at 60 cm
		Slope: level	



Sample No.	Horizon	Depth (cm)	Colour	Sand (%)	Silt (%)	Clay (%)	pH (H ₂ O)	pH (CaCl ₂)	Organic C (%)	Total Nitrogen (mg/g)	Extr. S (ug/g)	Extr. SO ₄ (ug/g)	Avail. P (ug/g)	Total P (ug/g)	Avail. Al (ug/g)
9085	Ah	0-20	10YR 4/2	30	46	24	5.76	5.10	5.37	3.12		31.2		380	
9084	Ae	22-30	2.5YR 7/2	14	42	44	5.55	4.68	0.92	0.42		12.6		70	
9083	Bmg	30-60	7.5YR 5/0	29	49	22	5.87	5.07	0.33	0.41		23.6		80	
9082	Ckg	60+	2.5YR 6/0	9	36	55	8.44	7.92	0.29	0.59		32.4		670	
9089	Ah	0-20	10YR 4/2	29	47	24	5.58	5.00	4.55	2.71		29.1		320	
9088	Ae	22-30	2.5YR 7/2	31	49	20	5.57	4.69	0.96	0.49		13.1		100	
9087	Btg	30-60	7.5YR 5/0	24	41	35	5.88	5.08	0.35	0.41		35.4		150	
9086	Ckg	60+	2.5YR 6/0	12	37	52	8.22	7.86	0.33	0.52		33.7		840	

SOIL PROFILE INFORMATION (cont'd.)

Site: Chippawa Creek Conservation Area

Classification: Orthic Humic Gleysol

Sample No.	Horizon	Exchangeable Cations (ug/g)				C.E.C. (m.e.) 100g	Pyrophosphate (%)			Dithionite (%)			CaCO3 (%)	Metals (ug/g)			
		Ca	Mg	K	Al		Fe	Al	Mn	Fe	Al	Mn		Zn	Cu	Ni	Pb
9085	Ah	1901	303	243	7	12.6	0.26	0.13	.0018	0.42	0.14	0.0080	1	54	22	14.0	20.0
9084	Ae	345	121	42	62	3.43	0.08	0.06	.0007	0.26	0.06	0.0020		20	16	6.1	5.7
9083	Bmg	868	388	22	10	7.61	0.04	0.02	.0013	0.37	0.05	0.0020		25	13	9.6	6.5
9082	Ckg	3080	1000	21		23.45	0.01	0.01	.0070	1.60	0.12	0.0680	11	66	46	37.0	11.0
9089	Ah	1598	272	211	15	10.76	0.23	0.14	.0046	0.43	0.140	0.0060		50	48	12.0	17.0
9088	Ae	335	121	53	62	3.39	0.08	0.07	.0004	0.30	0.064	0.0009		22	15	6.8	6.8
9087	Btg	1251	81	32	14	7.17	0.09	0.03	.0025	2.40	0.180	0.0090		41	28	18.0	9.7
9086	Ckg	3036	841	21		21.93	0.01	0.01	.0059	1.50	0.120	0.0540	6	62	36	34.0	10.0

SOIL PROFILE INFORMATION

Horizon Depth

Site: Christie Conservation Area

Date: 80/06/11

Ah

0

Location Code: 2001021

Parent Material: fluvial sand/silt deposit

UTM: 17T 579850.0 4792400.0

Vegetation: young maple, poplar, oak

Bm

30

Classification: Orthic Melanic Brunisol

Landform: sand plain/fluvial

Comments: near fish pond, Spencer Creek
flood plain

C

70

Slope: nearly level



Sample No.	Horizon	Depth (cm)	Colour	Sand (%)	Silt (%)	Clay (%)	pH (H ₂ O)	pH (CaCl ₂)	Organic C (%)	Total Nitrogen (mg/g)	Extr. S (ug/g)	Extr. SO ₄ (ug/g)	Avail. P (ug/g)	Total P (ug/g)	Avail. Al (ug/g)
9162	Ah	0-20	10YR 3/2	38	36	26	6.88	6.63	3.14	2.63		13.8		950	
9163	Ah	0-20	10YR 3/2	41	37	23	7.15	6.58	3.24	2.86		14.8		1050	
9160	Bm	30	10YR 3/3	41	46	12	6.33	5.49	1.41	1.26		12.5		830	
9161	Bm	30	10YR 3/3	42	45	13	5.80	4.95	1.32	1.10		12.4		760	
9158	Bm	40-50	10YR 3/3	44	44	13	6.19	5.27	1.41	1.21		13.6		870	
9159	Bm	40-50	10YR 3/3	42	45	13	5.77	4.93	1.57	1.25		13.7		900	
9156	C	60-70	7.5YR 5/6	47	45	8	6.23	5.46	0.53	0.55		14.3		630	
9157	C	60-70	7.5YR 5/6	43	49	8	6.20	5.39	0.45	0.45		17.8		510	

SOIL PROFILE INFORMATION (cont'd.)

Site: Christie Conservation Area

Classification: Orthic Melanic Brunisol

Sample No.	Horizon	Exchangeable Cations (ug/g)				C.E.C. (m.e.) 100g	Pyrophosphate (%)			Dithionite (%)			CaCO ₃ (%)	Metals (ug/g)			
		Ca	Mg	K	Al		Fe	Al	Mn	Fe	Al	Mn		Zn	Cu	Ni	Pb
9162	Ah	1981	414	128		13.53	0.10	0.04	0.0250	1.00	0.17	0.073	2	110	29	14	42.0
9163	Ah	2026	414	139		13.77	0.10	0.04	0.0270	1.10	0.18	0.079	1	142	37	14	46.0
9160	Bm	903	224	68	0.00	6.48	0.12	0.08	0.0086	1.00	0.24	0.054	2	62	24	11	12.0
9161	Bm	598	157	79	3.00	4.47	0.12	0.07	0.0110	1.10	0.24	0.079		62	29	11	14.0
9158	Bm	742	188	42	0.15	5.32	0.17	0.09	0.0079	1.10	0.26	0.053	1	58	24	11	10.0
9159	Bm	675	157	42	2.00	4.76	0.18	0.11	0.0093	1.10	0.28	0.056		55	26	10	9.8
9156	C	274	56	27	0.15	1.89	0.10	0.10	0.0019	0.92	0.27	0.024	2	45	27	13	4.5
9157	C	204	56	32	0.10	1.55	0.10	0.07	0.0026	1.10	0.30	0.039	1	51	25	11	5.1

SOIL PROFILE INFORMATION

Horizon

Depth

Site: Guelph Lake Conservation Area

Date: 80/06/12

Ah

0

Location Code: 2001022

Parent Material: till

UTM: 17T 561000.0 4827250.0

Vegetation: grasses

Bm

20

Classification: Orthic Melanic Brunisol

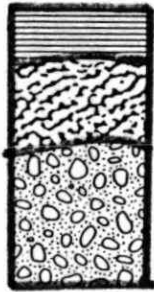
Landform: till plain

Comments: many stones, all sizes in C horizon

Ck

70

Slope: gently sloping



Sample No.	Horizon	Depth (cm)	Colour	Sand (%)	Silt (%)	Clay (%)	pH (H ₂ O)	pH (CaCl ₂)	Organic C (%)	Total Nitrogen (mg/g)	Extr. S (ug/g)	Extr. SO ₄ (ug/g)	Avail. P (ug/g)	Total P (ug/g)	Avail. Al (ug/g)
9168	Ah	0-14	10YR 3/2	42	34	24	7.87	7.39	2.74	2.85		10.0		960	
9169	Ah	0-14	10YR 3/2	42	34	25	7.85	7.38	2.71	2.54		8.6		850	
9166	Bm	14-20	10YR 4/3	45	33	22	7.99	7.41	1.61	1.78		8.4		730	
9167	Bm	14-20	10YR 4/3	44	29	26	7.88	7.36	1.45	1.26		9.7		620	
9164	Ck	70	10YR 5/3	72	10	19	8.31	7.69	0.21	0.20		1.5		270	
9165	Ck	70	10YR 5/3	84	4	12	8.36	7.80	0.29	0.15		1.3		310	

SOIL PROFILE INFORMATION (cont'd.)

Site: Guelph Lake Conservation Area

Classification: Orthic Melanic Brunisol

Sample No.	Horizon	Exchangeable Cations (ug/g)				C.E.C. (m.e.) 100g	Pyrophosphate (%)			Dithionite (%)			CaCO ₃ (%)	Metals (ug/g)			
		Ca	Mg	K	Al		Fe	Al	Mn	Fe	Al	Mn		Zn	Cu	Ni	Pb
9168	Ah	2248	545	236		16.17	0.07	0.03	0.0120	1.10	0.16	0.100	3	140	28	12.0	31
9169	Ah	2248	511	225		15.87	0.06	0.03	0.0120	1.10	0.15	0.100	3	140	27	12.0	26
9166	Bm	1643	409	32		11.57	0.09	0.03	0.0084	1.00	0.15	0.092	5	120	18	11.0	27
9167	Bm	1758	512	43		12.98	0.09	0.03	0.0071	1.20	0.16	0.095	3	180	22	15.0	73
9164	Ck	403	75	16		2.63	0.01	0.00	0.0026	0.33	0.03	0.024	59	86	29	5.5	16
9165	Ck	339	75	11		2.30	0.01	0.00	0.0025	0.26	0.02	0.017	65	75	22	5.1	15

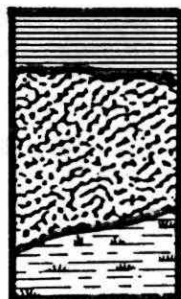
SOIL PROFILE INFORMATION

Horizon Depth

Site: Elora Gorge Conservation Area

Date: 80/06/12

Ah



0

Location Code: 2001023

Parent Material: till

Bm

40

UTM: 17T 544800.0 4835450.0

Vegetation: deciduous forest

Classification: Gleyed Melanic Brunisol

Landform: till plain

Comments: many fine mottles in C (10YR 5/6)

Cg

70

Slope: nearly level

Sample No.	Horizon	Depth (cm)	Colour	Sand (%)	Silt (%)	Clay (%)	pH (H ₂ O)	pH (CaCl ₂)	Organic C (%)	Total Nitrogen (mg/g)	Extr. S (ug/g)	Extr. SO ₄ (ug/g)	Avail. P (ug/g)	Total P (ug/g)	Avail. Al (ug/g)
9174	Ah	0-10	10YR 3/2	27	48	26	7.61	6.99	3.80	3.38		13.8		590	
9175	Ah	0-10	10YR 3/2	25	50	25	7.44	7.00	4.88	3.83		14.1		620	
9172	Bm	40	10YR 5/4	32	50	19	7.87	7.28	0.39	0.75		5.2		620	
9173	Bm	40	10YR 5/4	30	50	20	7.75	7.29	0.49	0.58		6.4		670	
9170	Cg	65+	10YR 6/1	41	44	14	8.12	7.41	0.08	0.15		5.3		990	
9171	Cg	65+	10YR 6/1	49	36	15	8.11	7.39		0.14		4.1		910	


SOIL PROFILE INFORMATION (cont'd.)

Site: Elora Gorge Conservation Area

Classification: Gleyed Melanic Brunisol

Sample No.	Horizon	Exchangeable Cations (ug/g)				C.E.C. (m.e.) 100g	Pyrophosphate (%)			Dithionite (%)			CaCO ₃ (%)	Metals (ug/g)			
		Ca	Mg	K	Al		Fe	Al	Mn	Fe	Al	Mn		Zn	Cu	Ni	Pb
9174	Ah	2922	725	42		20.50	0.14	0.11	0.0210	1.10	0.16	0.054	1	150	43	13.0	14.0
9175	Ah	3195	777	64		22.33	0.15	0.11	0.0220	0.95	0.15	0.045	1	130	34	11.0	16.0
9172	Bm	1191	389	27		9.12	0.05	0.01	0.0024	0.97	0.13	0.063	1	87	33	12.0	6.4
9173	Bm	1348	458	27		10.45	0.07	0.02	0.0024	1.10	0.16	0.076		99	37	13.0	5.7
9170	Cg	902	278	27		6.79	0.03	0.01	0.0011	1.00	0.13	0.050	1	38	40	9.9	4.5
9171	Cg	800	250	27		6.02	0.02	0.00	0.0007	0.92	0.11	0.044	1	33	25	9.6	4.1

SOIL PROFILE INFORMATION

Horizon	Depth	Site: Laurel Creek Conservation Area	Date: 80/06/12
Ah	0	Location Code: 2001024	Parent Material: fluvial deposit
	30	UTM: 17T 534700.0 4814950.0	Vegetation: maple forest
	50	Classification: Orthic Humic Regosol	Comments: little ground vegetation near APIOS precipitation collector
C		Landform: spillway	
		Slope: nearly level	

Sample No.	Horizon	Depth (cm)	Colour	Sand (%)	Silt (%)	Clay (%)	pH (H ₂ O)	pH (CaCl ₂)	Organic C (%)	Total Nitrogen (mg/g)	Extr. S (ug/g)	Extr. SO ₄ (ug/g)	Avail. P (ug/g)	Total P (ug/g)	Avail. Al (ug/g)
9182	Ah	0-10	7.5YR 4/2	44	31	25	6.60	5.88	2.65	0.41		12.2		620	
9183	Ah	0-10	7.5YR 4/2	43	34	23	6.55	5.98	2.90	1.46		13.6		370	
9180	Ah	20-30	7.5YR 4/2	44	33	23	6.86	6.31	1.24	1.07		7.6		420	
9181	Ah	20-30	7.5YR 4/2	43	33	24	6.98	6.42	1.12	1.09		7.5		410	
9178	Ah	45	7.5YR 3/2	49	30	21	6.98	6.11	0.86	0.84		6.4		360	
9179	Ahk	45	7.5YR 3/2	50	26	24	7.03	6.16	1.02	0.98		6.7		350	
9176	C	50	10YR 5/3	60	17	23	6.73	5.86	0.19	0.28		4.2		320	
9177	C	50	10YR 5/3	57	42	1	6.62	5.63	0.23	0.34		5.2		350	

SOIL PROFILE INFORMATION (cont'd.)

Site: Laurel Creek Conservation Area

Classification: Orthic Humic Regosol

Sample No.	Horizon	Exchangeable Cations (ug/g)				C.E.C. (m.e.) 100g	Pyrophosphate (%)			Dithionite (%)			CaCO ₃ (%)	Metals (ug/g)			
		Ca	Mg	K	Al		Fe	Al	Mn	Fe	Al	Mn		Zn	Cu	Ni	Pb
9182	Ah	1805	342	111		12.02	0.09	0.04	0.0260	0.80	0.10	0.053	2	76	28	12.0	14.0
9183	Ah	1805	352	111		11.10	0.08	0.04	0.0260	0.82	0.10	0.056	2	68	20	11.0	13.0
9180	Ah	1324	302	63		9.17	0.08	0.04	0.0180	0.72	0.19	0.047	1	65	24	10.0	8.6
9181	Ah	1237	282	51		8.55	0.08	0.04	0.0140	0.76	0.10	0.051	2	68	27	11.0	8.2
9178	Ah	935	224	25		6.52	0.12	0.05	0.0062	0.71	0.12	0.056	3	63	29	8.4	5.9
9179	Ahk	935	215	21		6.43	0.14	0.07	0.0072	0.70	0.12	0.055	5	66	31	8.6	5.9
9176	C	275	93	16		2.14	0.06	0.03	0.0028	0.47	0.06	0.039	2	42	23	7.7	4.4
9177	C	275	98	16		2.18	0.10	0.06	0.0049	0.52	0.09	0.042	2	46	27	8.0	5.1

SOIL PROFILE INFORMATION

Horizon

Depth

Site: Laurel Creek Conservation Area

Date: 81/06/04

Ah



0

20

40

Ck

60

Location Code: 2001024

Parent Material: till

UTM: 17T 534700.0 4814950.0

Vegetation: maple

Classification: Orthic Humic Regosol

Landform: moraine

Comments: resurvey; mottling at 40+ cm

Slope: level

Sample No.	Horizon	Depth (cm)	Colour	Sand (%)	Silt (%)	Clay (%)	pH (H ₂ O)	pH (CaCl ₂)	Organic C (%)	Total Nitrogen (mg/g)	Extr. S (ug/g)	Extr. SO ₄ (ug/g)	Avail. P (ug/g)	Total P (ug/g)	Avail. Al (ug/g)
17248	Ah	10	10YR 3/2				6.3	5.7	3						0.080
17247	Ah	10	10YR 3/2				6.6	5.7	3						0.280
17246	Ah	30	10YR 4/3				6.6	6.2	1						0.080
17245	Ah	30	10YR 4/3				6.6	5.7	1						0.080
17244	Ah	40	10YR 4/3				7.2	6.5	1						0.080
17243	Ah	40	10YR 4/3				7.7	6.9	1						0.080
17242	Ck	52	10YR 4/4				8.0	7.3	1						0.080
17241	Ck	52	10YR 4/4				7.9	7.4	1						0.080

SOIL PROFILE INFORMATION (cont'd.)

Site: Laurel Creek Conservation Area

Classification: Orthic Humic Regosol

Sample No.	Horizon	Exchangeable Cations (ug/g)				C.E.C. (m.e.) 100g	Pyrophosphate (%)			Dithionite (%)			CaCO ₃ (%)	Metals (ug/g)			
		Ca	Mg	K	Al		Fe	Al	Mn	Fe	Al	Mn		Zn	Cu	Ni	Pb
17248	A	1950	640	73		15.0							3				
17247	Ah	1860	640	71		14.5							1				
17246	Ah	1680	620	49		13.5							1				
17245	Ah	1510	520	49		12.0							1				
17244	Ah	1570	560	59		12.5							4				
17243	Ah	1740	560	49		13.5							3				
17242	Ck	1870	460	49		13.0							11				
17241	Ck	2000	480	45		14.0							11				

SOIL PROFILE INFORMATION

Horizon	Depth	Site: Orangeville Reservoir Conservation Area	Date: 80/07/02
Ah	0	Location Code: 2001042	Parent Material: fluvial/glacial sand
Bfj	20	UTM: 17T 574100.0 4864750.0	Vegetation: maple, grasses
Bm	40	Classification: Orthic Melanic Brunisol	
	60	Landform: spillway	Comments: limestone rocks in pit, many stones and rocks
C	80	Slope: nearly level	
	100		



Sample No.	Horizon	Depth (cm)	Colour	Sand (%)	Silt (%)	Clay (%)	pH (H ₂ O)	pH (CaCl ₂)	Organic C (%)	Total Nitrogen (mg/g)	Extr. S (ug/g)	Extr. SO ₄ (ug/g)	Avail. P (ug/g)	Total P (ug/g)	Avail. Al (ug/g)
9329	Ah	0-20	10YR 4/2	34	42	24	6.60	5.90	4.35	2.44		10.9		790	
9330	Ah	0-20	10YR 4/2	37	45	18	6.53	5.85	4.19	2.01		10.5		740	
9327	Bfj	35	10YR 4/3	45	34	20	6.38	5.34	1.01	0.48		3.9		570	
9328	Bfj	35	10YR 4/3	45	34	20	6.35	5.69	1.06	0.79		5.1		750	
9325	Bm	50	10YR 5/4	74	19	7	6.93	5.81	0.37	0.14		1.3		520	
9326	Bm	50	10YR 5/4	80	15	6	6.45	5.37	0.65	0.29		1.6		630	
9323	C	90	7.5YR 4/4	81	10	9	7.15	6.47	0.53	0.32		2.1		420	
9324	Ck	90	7.5YR 4/4	81	10	10	7.84	7.36	0.40	0.11		1.5		550	

SOIL PROFILE INFORMATION (cont'd.)

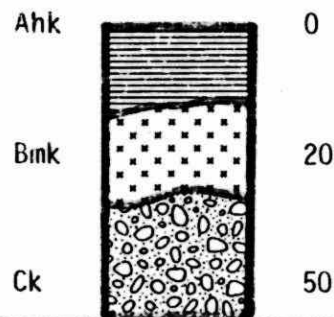
Site: Orangeville Reservoir

Classification: Orthic Melanic Brunisol

Sample No.	Horizon	Exchangeable Cations (ug/g)				C.E.C. (m.e.) 100g	Pyrophosphate (%)			Dithionite (%)			CaCO ₃ (%)	Metals (ug/g)			
		Ca	Mg	K	Al		Fe	Al	Mn	Fe	Al	Mn		Zn	Cu	Ni	Pb
9329	Ah	2295	450	53		15.21	0.30	0.17	0.0160	0.81	0.300	0.037	2	62	15	5.4	8.0
9330	Ah	2124	308	61		13.22	0.28	0.16	0.0120	0.86	0.310	0.032	1	62	15	5.9	8.7
9327	Bfj	760	115	95	0.1	4.96	0.22	0.22	0.0056	0.70	0.260	0.018	0	55	13	8.9	7.5
9328	Bfj	1064	115	56		6.82	0.23	0.15	0.0067	1.0	0.320	0.032	2	52	16	13.0	7.4
9325	Bm	330	63	19		2.19	0.08	0.08	0.0036	0.41	0.120	0.013	2	23	16	53.0	4.8
9326	Bm	414	57	12	3.2	2.59	0.08	0.11	0.0054	0.44	0.180	0.019	0	25	16	9.9	3.1
9323	C	655	72	27		3.91	0.07	0.05	0.0075	0.35	0.130	0.027	1	22	13	6.0	4.0
9324	Ck	717	53	27		4.07	0.04	0.04	0.0045	0.42	0.071	0.021	10	22	28	62.0	1.2

SOIL PROFILE INFORMATION

Horizon Depth



Site: Waterford Lakes Conservation Area

Date: 80/07/17

Location Code: 2001058

Parent Material: till

UTM: 17T 555650.0 4753910.0

Vegetation: balsam, poplar, grasses,
goldenrod, wild grape.

Classification: Orthic Melanic Brunisol

Landform: moraine

Comments: very stoney at 30-60 cm

Slope: nearly level

Sample No.	Horizon	Depth (cm)	Colour	Sand (%)	Silt (%)	Clay (%)	pH (H ₂ O)	pH (CaCl ₂)	Organic C (%)	Total Nitrogen (mg/g)	Extr. S (ug/g)	Extr. SO ₄ (ug/g)	Avail. P (ug/g)	Total P (ug/g)	Avail. Al (ug/g)
9467	Ahk	0-14	10YR 4/1	60	20	20	7.82	7.36	2.99	2.43		6.9		1040	
9468	Ahk	0-14	10YR 4/1	55	22	23	7.81	7.42	3.23	2.61		7.6		1040	
9465	Bmk	26	10YR 6/4	70	15	16	8.20	7.58	0.43	0.38		3.7		770	
9466	Bmk	26	10YR 6/4	71	13	16	8.39	7.79	0.39	0.26		8.3		720	
9463	Ck	50	10YR 5/3	77	6	17	8.37	7.76	0.25	0.24		11.0		400	
9464	Ck	50	10YR 5/3	66	20	14	8.207	7.65	0.43	0.39		4.4		800	

SOIL PROFILE INFORMATION (cont'd.)

Site: Waterford Lakes Conservation Area

Classification: Orthic Melanic Brunisol

Sample No.	Horizon	Exchangeable Cations (ug/g)				C.E.C. (m.e.) 100g	Pyrophosphate (%)			Dithionite (%)			CaCO ₃ (%)	Metals (ug/g)			
		Ca	Mg	K	Al		Fe	Al	Mn	Fe	Al	Mn		Zn	Cu	Ni	Pb
9467	Ahk	2020	176	136		11.83	0.03	0.01	0.0260	0.67	0.08	0.049	8	69	22	8.6	18.0
9468	Ahk	2109	194	332		12.93	0.03	0.00	0.0310	0.70	0.09	0.052	8	70	26	8.5	21.0
9465	Bmk	827	60	32		4.69	0.05	0.02	0.0092	0.55	0.07	0.049	10	43	18	43.0	6.2
9466	Bmk	827	69	35		5.77	0.02	0.01	0.0063	0.76	0.07	0.072	30	79	40	30.0	13.0
9463	Ck	699	58	30		4.02	0.02	0.01	0.0060	0.69	0.07	0.050	31	72	29	34.0	11.0
9464	Ck	776	67	30		4.47	0.05	0.03	0.0085	0.40	0.05	0.035	11	44	21	27.0	6.1

SOIL PROFILE INFORMATION

Horizon	Depth	Site: Norfolk Conservation Area	Date: 80/07/17
Ahp	0	Location Code: 2001059	Parent Material: lacustrine clay
Bm ¹	20	UTM: 17T 559950.0 4732900.0	Vegetation: sugar maple, red oak, eastern cottonwood, ironwood
Bm ₂	40	Classification: Orthic Melanic Brunisol	Comments:
C	60	Landform: clay plain	
		Slope: level	

Sample No.	Horizon	Depth (cm)	Colour	Sand (%)	Silt (%)	Clay (%)	pH (H ₂ O)	pH (CaCl ₂)	Organic C (%)	Total Nitrogen (mg/g)	Extr. S (ug/g)	Extr. SO ₄ (ug/g)	Avail. P (ug/g)	Total P (ug/g)	Avail. Al (ug/g)
9475	Ahp	0-30	10YR 3/3	25	44	31	6.18	5.51	3.10	2.35		17		750	
9476	Ahp	0-30	10YR 3/3	32	43	26	6.19	5.52	2.78	2.21		14		700	
9473	Bm ₁	35	10YR 5/4	33	43	25	6.33	5.52	1.29	1.03		13		510	
9474	Bm ₁	35	10YR 5/4	29	53	18	6.16	5.40	1.60	1.25		15		440	
9471	Bm ₂	45	10YR 5/4	25	51	24	6.48	5.78	0.61	0.48		11		450	
9472	Bm ₂	45	10YR 5/4	41	39	20	6.50	5.70	0.70	0.55		14		420	
9469	C	55	10YR 4/3	17	36	47	6.67	6.25	0.32	0.48		17		780	
9470	C	55	10YR 4/3	12	47	41	6.96	6.29	0.43	0.53		18		800	

SOIL PROFILE INFORMATION (cont'd.)

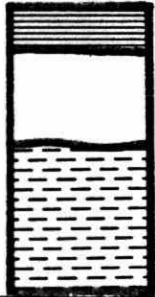
Site: Norfolk Conservation Area

Classification: Orthic Melanic Brunisol

Sample No.	Horizon	Exchangeable Cations (ug/g)				C.E.C. (m.e.) 100g	Pyrophosphate (%)			Dithionite (%)			CaCO ₃ (%)	Metals (ug/g)			
		Ca	Mg	K	Al		Fe	Al	Mn	Fe	Al	Mn		Zn	Cu	Ni	Pb
9475	Ahp	1500	180	146		9.31	0.27	0.13	0.0160	0.77	0.16	0.024	3	62	17	13	11.0
9476	Ahp	1332	161	121		8.24	0.26	0.12	0.0130	0.69	0.15	0.021	2	58	21	12	8.7
9473	Bm ₁	913	114	22		5.53	0.24	0.12	0.0067	0.79	0.16	0.023	2	54	18	13	4.4
9474	Bm ₁	1090	145	41	2.05	6.28	0.25	0.13	0.0081	0.78	0.16	0.022	2	54	13	12	3.8
9471	Bm ₂	1028	129	25		6.22	0.17	0.07	0.0042	0.97	0.14	0.037	1	60	28	17	6.1
9472	Bm ₂	797	102	20		4.85	0.19	0.09	0.0048	0.81	0.13	0.027	2	53	16	14	3.4
9469	C	2222	277	35		13.41	0.08	0.02	0.0024	1.4	0.17	0.061	0	83	36	30	9.3
9470	C	2300	277	38		13.81	0.07	0.02	0.0022	1.50	0.17	0.066	2	76	34	28	8.0

SOIL PROFILE INFORMATION

Horizon	Depth	Site: Selkirk Provincial Park	Date: 80/07/17
Ah	0	Location Code: 2001060	Parent Material: lacustrine clay
Ae	10	UTM: 17T 585200.0 4740900.0	Vegetation: white pine, red oak, grasses
Bt	20	Classification: Orthic Gray Brown Luvisol	Comments:
	40	Landform: clay plain	
		Slope: simple, class 1, level	



Sample No.	Horizon	Depth (cm)	Colour	Sand (%)	Silt (%)	Clay (%)	pH (H ₂ O)	pH (CaCl ₂)	Organic C (%)	Total Nitrogen (mg/g)	Extr. S (ug/g)	Extr. SO ₄ (ug/g)	Avail. P (ug/g)	Total P (ug/g)	Avail. Al (ug/g)
9481	Ah	0-10	10YR 4/1	15	25	60	6.44	5.90	4.73	3.19		14.0		0.75	
9482	Ah	0-10	10YR 4/1	12	39	48	6.30	5.75	4.54	5.17		14.0		0.82	
9479	Ae	10-20	10YR 7/3	4	54	43	5.02	4.24	0.84	0.71		7.1		0.46	
9480	Ae	10-20	10YR 7/3	4	51	44	4.98	4.21	0.70	0.72		6.9		0.44	
9477	Bt	35	5YR 4/4	2	21	77	4.85	4.38	0.69	0.84		14.0		0.61	
9478	Bt	35	5YR 4/4	1	22	77	4.77	4.29	0.47	0.76		14.0		0.64	

SOIL PROFILE INFORMATION (cont'd.)

Site: Selkirk Provincial Park

Classification: Orthic Gray Brown Luvisol

Sample No.	Horizon	Exchangeable Cations (ug/g)				C.E.C. (m.e.) 100g	Pyrophosphate (%)			Dithionite (%)			CaCO ₃ (%)	Metals (ug/g)			
		Ca	Mg	K	Al		Fe	Al	Mn	Fe	Al	Mn		Zn	Cu	Ni	Pb
9481	Ah	2325	287	162		14.33	0.19	0.08	0.7500	0.95	0.16	0.10	2	100	19	20	32.0
9482	Ah	2325	262	146		14.09	0.17	0.08	0.0660	0.93	0.16	0.10	3	100	25	21	36.0
9479	Ae	670	115	73	331	7.76	0.20	0.12	0.0079	1.10	0.15	0.036	0	90	30	26	8.7
9480	Ae	781	134	59	378	8.94	0.19	0.13	0.0076	1.20	0.18	0.038	0	91	25	28	6.9
9477	Bt	2394	367	112	306	18.27	0.18	0.11	0.0050	1.80	0.25	0.044	0	106	50	49	9.9
9478	Bt	1974	338	130	388	16.78	0.16	0.12	0.0050	1.90	0.25	0.047	0	107	45	48	8.0

SOIL PROFILE INFORMATION

Horizon Depth

Site: Selkirk Provincial Park

Date: 81/07/23

Location Code: 2001060

Parent Material: clay

UTM: 17T 585200.0 4740900.0

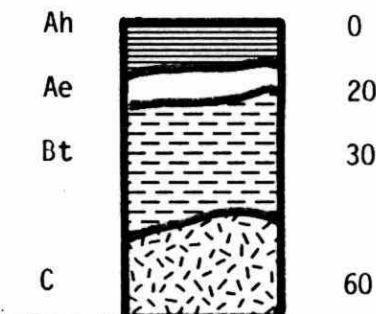
Vegetation: red oak, beech, white pine,
white ash

Classification: Orthic Gray Brown Luvisol

Landform: clay plain

Comments: resurvey

Slope: simple, class 1, level



Sample No.	Horizon	Depth (cm)	Colour	Sand (%)	Silt (%)	Clay (%)	pH (H ₂ O)	pH (CaCl ₂)	Organic C (%)	Total Nitrogen (mg/g)	Extr. S (ug/g)	Extr. SO ₄ (ug/g)	Avail. P (ug/g)	Total P (ug/g)	Avail. Al (ug/g)
17504	Ah	0-12	2.5YR 5/2				5.4	4.8							0.380
17499	Ah	0-12	2.5YR 5/2				5.5	4.4							0.490
17498	Ae	12-25	10YR 4/3				4.9	3.7							3.600
17497	Ae	12-25	10YR 4/3				4.9	3.8							3.500
17496	Bt	25-35	10YR 4/4				5.4	4.5							0.380
17495	Bt	25-35	10YR 4/4				5.7	4.9							0.280
17494	C	35-55	10YR 4/3				8.0	7.5							0.080
17493	C	35-55	10YR 3/3				7.1	6.3							0.083

SOIL PROFILE INFORMATION (cont'd.)

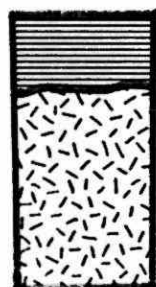
Site: Selkirk Provincial Park

Classification: Orthic Gray Brown Luvisol

Sample No.	Horizon	Exchangeable Cations (ug/g)				C.E.C. (m.e.) 100g	Pyrophosphate (%)			Dithionite (%)			CaCO ₃ (%)	Metals (ug/g)			
		Ca	Mg	K	Al		Fe	Al	Mn	Fe	Al	Mn		Zn	Cu	Ni	Pb
17504	Ah	1860	250	170	9	11.81											
17499	Ah	1740	240	160	9	11.14											
17498	Ae	1360	170	110	250	10.97											
17497	Ae	1240	140	98	230	9.89											
17496	Bt	3210	380	140	51	19.97											
17495	Bt	3410	430	140	19	21.06											
17494	C	4120	340	110		23.64							2				
17493	C	4320	440	140		25.48							3				

SOIL PROFILE INFORMATION

Horizon	Depth	Site: La Fortune Conservation Area	Date: 80/07/17
Ah	0	Location Code: 2001061	Parent Material: lacustrine clay
C	20	UTM: 17T 581450.0 4772150.0	Vegetation: red maple, scotch pine, dogwood, white ash
	40	Classification: Orthic Humic Regosol	
	60	Landform: clay plain	Comments:
		Slope: level	



Sample No.	Horizon	Depth (cm)	Colour	Sand (%)	Silt (%)	Clay (%)	pH (H ₂ O)	pH (CaCl ₂)	Organic C (%)	Total Nitrogen (mg/g)	Extr. S (ug/g)	Extr. SO ₄ (ug/g)	Avail. P (ug/g)	Total P (ug/g)	Avail. Al (ug/g)
9487	Ah	0-12	10YR 3/2	3	48	49	6.71	6.26	5.33	3.47		20.0		910	
9488	Ah	0-12	10YR 3/2	3	49	48	6.69	6.29	5.59	3.62		22.0		950	
9485	C	20	10YR 4/3	2	54	44	6.37	5.72	0.51	0.74		18.0		530	
9486	C	20	10YR 4/3	2	54	44	6.43	5.98	0.70	0.80		8.2		520	
9483	C	40	10YR 5/4	2	48	50	6.63	6.16	0.43	0.53		14.0		730	
9484	C	40	10YR 5/4	1	47	52	6.58	5.89	0.29	0.50		14.0		680	

SOIL PROFILE INFORMATION (cont'd.)

Site: La Fortune Conservation Area

Classification: Orthic Humic Regosol

Sample No.	Horizon	Exchangeable Cations (ug/g)				C.E.C. (m.e.) 100g	Pyrophosphate (%)			Dithionite (%)			CaCO ₃ (%)	Zn	Metals (ug/g)		
		Ca	Mg	K	Al		Fe	Al	Mn	Fe	Al	Mn			Cu	Ni	Pb
9487	Ah	3668	451	206		22.43	0.19	0.06	0.0650	1.5	0.18	0.140	1	126	48	37	23.0
9488	Ah	3823	462	193		23.28	0.25	0.06	0.0670	1.5	0.19	0.150	1	132	42	36	26.0
9485	C	1911	240	104		11.68	0.11	0.04	0.0054	1.7	0.17	0.067	2	92	53	41	6.7
9486	C	1989	280	128		12.46	0.13	0.04	0.0150	1.6	0.16	0.072	1	96	59	38	7.8
9483	C	2927	292	78		17.14	0.09	0.02	0.0065	1.7	0.16	0.066	2	96	43	42	7.1
9484	C	2398	282	95		14.48	0.08	0.02	0.0045	1.7	0.16	0.070	2	96	43	42	5.4

SOIL PROFILE INFORMATION

Horizon Depth

Site: Nanticoke Seedling Plot, D-2

Date: 80/09/08

Ap

0

Location Code: 2001094

Parent Material: lacustrine clay

UTM: 17T 583300.0 4743900.0

Vegetation: eastern white pine, white birch,
white ash

20

Classification: Orthic Gray Brown Luvisol

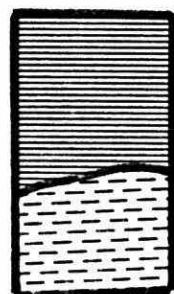
Bt

40

Landform: clay plain

Comments: faint horizonation

Slope: level



Sample No.	Horizon	Depth (cm)	Colour	Sand (%)	Silt (%)	Clay (%)	pH (H ₂ O)	pH (CaCl ₂)	Organic C (%)	Total Nitrogen (mg/g)	Extr. S (ug/g)	Extr. SO ₄ (ug/g)	Avail. P (ug/g)	Total P (ug/g)	Avail. Al (ug/g)
9787	Ap	0-10	2.5Y 5/2	5	29	66	6.45	6.00	3.56	2.56		20.0		590	
9788	Ap	0-10	2.5Y 5/2	6	29	65	6.57	6.17	3.60	3.46		29.0		710	
9785	Ap	20	7.5YR 4/2	4	30	66	6.46	5.86	2.78	2.35		15.0		600	
9786	Ap	20	7.5YR 4/2	4	31	64	6.40	5.87	2.85	2.26		16.0		640	
9783	Bt	35	7.5YR 3/2	2	19	80	6.47	6.12	1.08	1.08		16.0		390	
9784	Bt	35	7.5YR 3/2	1	17	82	6.59	6.18	1.05	1.28		19.0		390	

SOIL PROFILE INFORMATION (cont'd.)

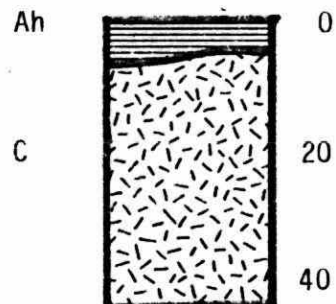
Site: Nanticoke Seedling Plot, D-2

Classification: Orthic Gray Brown Luvisol

Sample No.	Horizon	Exchangeable Cations (ug/g)				C.E.C. (m.e.) 100g	Pyrophosphate (%)			Dithionite (%)			CaCO ₃ (%)	Metals (ug/g)			
		Ca	Mg	K	Al		Fe	Al	Mn	Fe	Al	Mn		Zn	Cu	Ni	Pb
9787	Ap	3129	501.3	203.0		20.17	0.14	0.08	0.0160	1.8	0.24	0.110	2	120	29	36	22
9788	Ap	3281	535.8	261.0		21.35	0.14	0.08	0.0180	1.7	0.22	0.110	3	110	26	35	22
9785	Ap	3300	512.7	107.0		20.88	0.18	0.10	0.0220	1.7	0.23	0.100		110	25	36	19
9786	Ap	3186	524.2	127.0		20.44	0.18	0.10	0.0250	1.8	0.23	0.110	2	110	30	39	21
9783	Bt	3276	762.0	68.7		22.67	0.18	0.09	0.0087	1.8	0.24	0.055	2	110	33	47	13
9784	Bt	3443	715.0	63.6		23.06	0.15	0.07	0.0099	1.8	0.25	0.063	1	110	34	49	14

SOIL PROFILE INFORMATION

Horizon Depth



Site: Nanticoke Seedling Plot, D + E1

Date: 80/09/08

Location Code: 2001095

Parent Material: lacustrine clay

UTM: 17T 580200.0 4740850.0

Vegetation: eastern white pine, white birch,
white ash

Classification: Orthic Humic Regosol

Landform: clay plain

Comments: little to no horizonation within
profile, possible past disturbance,
slightly stoney

Slope: level

Sample No.	Horizon	Depth (cm)	Colour	Sand (%)	Silt (%)	Clay (%)	pH (H ₂ O)	pH (CaCl ₂)	Organic C (%)	Total Nitrogen (mg/g)	Extr. S (ug/g)	Extr. SO ₄ (ug/g)	Avail. P (ug/g)	Total P (ug/g)	Avail. Al (ug/g)
9793	Ah	0-10	10YR 4/2	5	31	64	7.34	6.98	2.46	2.14		45.0		420	
9794	Ah	0-10	10YR 4/2	79	4	17	7.38	6.99	2.57	2.28		33.0		540	
9791	C	25	10YR 4/3	6	26	69	7.37	7.06	1.78	1.41		55.0		500	
9792	C	25	10YR 4/3	6	24	70	7.38	7.05	1.77	1.62		42.0		510	
9789	C	35	10YR 4/3	2	23	75	7.56	7.22	1.01	1.12		162.0		610	
9790	C	35	10YR 4/3	3	21	76	7.42	7.15	0.94	1.19		129.0		640	

SOIL PROFILE INFORMATION (cont'd.)

Site: Hanticoke Seedling Plot, D + E1

Classification: Orthic Humic Regosol

Sample No.	Horizon	Exchangeable Cations (ug/g)				C.E.C. (m.e.) 100g	Pyrophosphate (%)			Dithionite (%)			CaCO ₃ (%)	Metals (ug/g)			
		Ca	Mg	K	Al		Fe	Al	Mn	Fe	Al	Mn		Zn	Cu	Ni	Pb
9793	Ah	2998	766	229		21.69	0.11	0.04	0.0160	1.6	0.18	0.072	2	96	25	36	19
9794	Ah	2530	596	211		18.03	0.12	0.04	0.0160	1.6	0.18	0.071	2	110	28	38	24
9791	C	2682	869	97		20.61	0.09	0.04	0.0110	1.6	0.18	0.063	2	94	26	37	16
9792	C	2811	855	112		21.19	0.11	0.04	0.0150	1.7	0.19	0.067	3	99	27	39	16
9789	C	2597	958	92		20.93	0.10	0.03	0.0056	1.8	0.21	0.062	3	95	31	45	12
9790	C	2760	912	102		21.36	0.10	0.03	0.0062	1.7	0.20	0.056	3	99	32	47	13

SOIL PROFILE INFORMATION

Horizon	Depth	Site: Nanticoke Seedling Plot, E-2 (Selkirk)	Date: 80/09/08
Ap	0	Location Code: 2001096	Parent Material: lacustrine clay
Apk	20	UTM: 17T 58690.0 4742750.0	Vegetation: eastern white pine, white birch white ash
Bmg	40	Classification: Orthic Humic Gleysol	Comments: evidence of past disturbance carbonate stones in pit mottling in Bmg (10YR 5/8)
		Landform: clay plain	
		Slope: level	



Sample No.	Horizon	Depth (cm)	Colour	Sand (%)	Silt (%)	Clay (%)	pH (H ₂ O)	pH (CaCl ₂)	Organic C (%)	Total Nitrogen (mg/g)	Extr. S (ug/g)	Extr. SO ₄ (ug/g)	Avail. P (ug/g)	Total P (ug/g)	Avail. Al (ug/g)
9807	Ap	0-10		16	27	57	7.56	7.12	7.45	5.45		37		1690	
9808	Ap	0-10		14	26	59	7.35	7.01	7.04	4.14		38		1330	
9805	Apk	20	10YR 4/1	15	25	59	7.24	6.74	3.51	2.77		21		990	
9806	Apk	20	10YR 4/1	13	24	63	7.27	6.82	5.52	3.88		27		1240	
9803	Bmg	35	10YR 5/2	8	28	64	6.85	6.46	0.86	0.95		23		280	
9804	Bmg	35	10YR 5/2	12	38	50	6.96	6.51	0.69	1.04		15		420	

SOIL PROFILE INFORMATION (cont'd.)

Site: Nanticoke Seedling Plot, E-2

Classification: Orthic Humic Gleysol

Sample No.	Horizon	Exchangeable Cations (ug/g)				C.E.C. (m.e.) 100g	Pyrophosphate (%)			Dithionite (%)			CaCO ₃ (%)	Metals (ug/g)			
		Ca	Mg	K	Al		Fe	Al	Mn	Fe	Al	Mn		Zn	Cu	Ni	Pb
9807	Ap	4940	395.0	287.0		28.59	0.37	0.10	0.0700	1.63	0.23	0.135	3	760	64	39	310
9808	Ap	1189	599.0	316.0		11.48	0.36	0.11	0.7300	2.08	0.26	0.180	3	700	44	37	260
9805	Apk	4127	434.0	271.0		24.75	0.37	0.14	0.3100	2.80	0.32	0.360	14	270	29	38	53
9806	Apk	4451	428.0	282.0		26.44	0.44	0.16	0.9700	2.20	0.31	0.468	5	480	41	39	110
9803	Bmg	2923	478.6	152.6		18.83	0.20	0.07	0.0056	2.80	0.28	0.096	2	110	23	36	19
9804	Bmg	2226	343.0	130.0		14.18	0.30	0.10	0.0085	2.70	0.27	0.130	3	110	19	31	20

SOIL PROFILE INFORMATION

Horizon Depth Site: Nanticoke Seedling Plot, E-4 Date: 80/09/08

Ap 0 Location Code: 2001097 Parent Material: lacustrine clay

20 UTM: 17T 602500.0 4745150.0 Vegetation: eastern white pine, white birch, white ash

Bt 40 Classification: Orthic Gray Brown Luvisol

Landform: clay plain Comments:

Slope: level

Sample No.	Horizon	Depth (cm)	Colour	Sand (%)	Silt (%)	Clay (%)	pH (H ₂ O)	pH (CaCl ₂)	Organic C (%)	Total Nitrogen (mg/g)	Extr. S (ug/g)	Extr. SO ₄ (ug/g)	Avail. P (ug/g)	Total P (ug/g)	Avail. Al (ug/g)
9819	Ap	0-10	10YR 5/2	11	40	49	6.70	6.20	3.25	2.66		21		590	
9820	Ap	0-10	10YR 5/2	10	40	50	6.59	6.10	2.79	2.22		13		570	
9817	Ap	20	10YR 5/2	10	35	55	6.43	5.91	2.15	1.82		11		490	
9818	Ap	20	10YR 5/2	11	39	50	6.48	5.94	2.55	2.14		11		610	
9815	Bt	35	7.5YR 5/2	7	5	85	5.98	5.65	0.82	1.05		12		440	
9816	Bt	35	7.5YR 5/2	4	26	70	6.06	5.63	0.80	0.99		12		430	

SOIL PROFILE INFORMATION (cont'd.)

Site: Nanticoke Seedling Plot, E-4

Classification: Orthic Gray Brown Luvisol

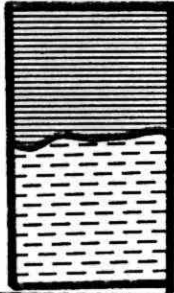
Sample No.	Horizon	Exchangeable Cations (ug/g)				C.E.C. (m.e.) 100g	Pyrophosphate (%)			Dithionite (%)			CaCO ₃ (%)	Metals (ug/g)			
		Ca	Mg	K	Al		Fe	Al	Mn	Fe	Al	Mn		Zn	Cu	Ni	Pb
9819	Ap	2723	643	181.0		19.21	0.18	0.07	0.8300	1.71	0.22	0.113	3	110	23	31	35
9820	Ap	2514	595	141.0		17.68	0.17	0.07	0.2300	1.54	0.22	0.082	2	110	23	31	27
9817	Ap	2473	583	91.6		17.26	0.20	0.07	0.2400	1.74	0.23	0.108	3	110	24	34	30
9818	Ap	2432	571	101.4		16.98	0.20	0.07	0.2400	1.66	0.23	0.102	2	110	20	32	29
9815	Bt	2807	733	86.7		20.12	0.18	0.07	0.0071	1.44	0.22	0.040	6	110	29	45	17
9816	Bt	2850	733	91.6		20.34	0.19	0.06	0.0072	1.67	0.25	0.070	2	140	31	45	20

SOIL PROFILE INFORMATION

Horizon Depth

Ap

0



20

Btgj

40

Site: Nanticoke Seedling Plot, E-3

Date: 80/09/08

Location Code: 2001098

Parent Material: lacustrine clay

UTM: 17T 590950.0 4742800.0

Vegetation: eastern white pine, white birch
white ash

Classification: Orthic Gray Brown Luvisol

Landform: clay plain

Comments: faint mottling in B

Slope: level

Sample No.	Horizon	Depth (cm)	Colour	Sand (%)	Silt (%)	Clay (%)	pH (H ₂ O)	pH (CaCl ₂)	Organic C (%)	Total Nitrogen (mg/g)	Extr. S (ug/g)	Extr. SO ₄ (ug/g)	Avail. P (ug/g)	Total P (ug/g)	Avail. Al (ug/g)
9813	Ap	0-10	10YR 5/2	14	38	47	6.08	5.45	3.13	2.84		17		760	
9814	Ap	0-10	10YR 5/2	17	38	45	6.04	5.43	2.31	2.34		12		790	
9811	Ap	20	10YR 5/2	15	43	42	5.98	5.44	2.14	1.17		11		620	
9812	Ap	20	10YR 5/2	16	43	41	6.08	5.52	2.22	2.09		12		680	
9809	Btgj	35	10YR 4/4	6	32	62	6.13	5.63	0.59	0.80		15		550	
9810	Btgj	35	10YR 4/4	8	36	56	5.84	5.41	0.61	0.72		15		410	

SOIL PROFILE INFORMATION (cont'd.)

Site: Nanticoke Seedling Plot, E-3

Classification: Orthic Gray Brown Luvisol

Sample No.	Horizon	Exchangeable Cations (ug/g)				C.E.C. (m.e.) 100g	Pyrophosphate (%)			Dithionite (%)			CaCO ₃ (%)	Metals (ug/g)			
		Ca	Mg	K	Al		Fe	Al	Mn	Fe	Al	Mn		Zn	Cu	Ni	Pb
9813	Ap	2576	405	197.0	3	16.66	0.30	0.11	0.0410	1.66	0.23	0.103	1	110	19	25	28
9814	Ap	2171	394	197.0	3	14.57	0.30	0.10	0.0360	1.64	0.23	0.103	1	110	18	23	24
9811	Ap	2364	384	130.0	3	15.25	0.30	0.14	0.0330	1.78	0.25	0.107	2	110	21	25	25
9812	Ap	2055	379	111.0		13.60	0.28	0.11	0.0300	1.77	0.25	0.120	2	110	25	24	28
9809	Btgj	2597	631	76.9		18.23	0.14	0.07	0.0055	1.53	0.22	0.053		100	32	39	13
9810	Btgj	1930	282	119.0	6	12.03	0.16	0.07	0.0056	1.64	0.22	0.053	2	98	27	35	13

SOIL PROFILE INFORMATION

Horizon	Depth	Site: Nanticoke Seedling Plot, B-4	Date: 80/08/11
Ap	0	Location Code: 2001099	Parent Material: lacustrine sand
Bm	20	UTM: 17T 574700.0 4740550.0	Vegetation: eastern white pine, white birch white ash
C	40	Classification: Orthic Sombric Brunisol	Comments: no stones
	60	Landform: sand plain	
		Slope: level	



Sample No.	Horizon	Depth (cm)	Colour	Sand (%)	Silt (%)	Clay (%)	pH (H ₂ O)	pH (CaCl ₂)	Organic C (%)	Total Nitrogen (mg/g)	Extr. S (ug/g)	Extr. SO ₄ (ug/g)	Avail. P (ug/g)	Total P (ug/g)	Avail. Al (ug/g)
9827	Ap	0-15	10YR 3/2	83	9	8	6.12	5.16	3.91	0.94		11.0		440	
9828	Ap	0-15	10YR 3/2	83	9	8	6.04	5.11	3.55	0.75		14.0		420	
9825	Bm	30	10YR 5/8	94	4	1	6.55	5.62	1.60	0.36		12.0		210	
9826	Bm	30	10YR 5/8	96	2	1	6.53	5.61	1.61	0.30		19.0		200	
9823	Bm	45	10YR 5/8	97	2	1	6.54	5.50	0.82	0.28		5.7		240	
9824	Bm	45	10YR 5/8	97	2	1	6.54	5.51	0.90	0.21		7.8		190	
9821	C	60	10YR 7/8	95	2	3	6.46	5.47	0.17	0.14		3.7		200	
9822	C	60	10YR 7/8	88	1	11	6.44	5.44	0.37	0.17		5.2		240	

SOIL PROFILE INFORMATION (cont'd.)

Site: Nanticoke Seedling Plot, B-4

Classification: Orthic Sombric Brunisol

Sample No.	Horizon	Exchangeable Cations (ug/g)				C.E.C. (m.e.) 100g	Pyrophosphate (%)			Dithionite (%)			CaCO ₃ (%)	Metals (ug/g)			
		Ca	Mg	K	Al		Fe	Al	Mn	Fe	Al	Mn		Zn	Cu	Ni	Pb
9827	Ap	340	18.0	54.0	8	2.05	0.16	0.39	0.0025	0.86	0.59	0.009	3	52	9	6.9	15.0
9828	Ap	340	27.0	65.0	11	2.18	0.13	0.30	0.0021	0.86	0.61	0.009	1	52	18	5.9	16.0
9825	Bm	190	11.2	36.0		1.13	0.08	0.27	0.0004	0.76	0.58	0.008	2	48	18	12.0	9.6
9826	Bm	198	9.0	36.0		1.15	0.08	0.25	0.0004	0.82	0.61	0.008	2	50	20	12.0	12.0
9823	Bm	110	11.2	26.3		0.71	0.05	0.21	0.0004	0.47	0.34	0.008	3	29	10	8.6	6.6
9824	Bm	126	9.0	23.9		0.76	0.04	0.20	0.0004	0.49	0.32	0.007	1	37	14	11.0	10.0
9821	C	69	50.0	27.0	1	0.82	0.04	0.10	0.0100	0.25	0.14	0.080	2	14	12	3.2	1.9
9822	C	69	9.0	32.0	1	0.50	0.07	0.17	0.0180	0.42	0.24	0.020	4	24	12	7.3	5.5

SOIL PROFILE INFORMATION

Horizon Depth

Ap

0

Bm

20

40



Site: Nanticoke Seedling Plot, B-3

Date: 80/09/11

Location Code: 2001100

Parent Material: lacustrine silts

UTM: 17T 566000.0 4749850.0

Vegetation: eastern white pine, white birch
white ash, grass

Classification: Orthic Melanic Brunisol

Landform: clay plain

Comments:

Slope: level

Sample No.	Horizon	Depth (cm)	Colour	Sand (%)	Silt (%)	Clay (%)	pH (H ₂ O)	pH (CaCl ₂)	Organic C (%)	Total Nitrogen (mg/g)	Extr. S (ug/g)	Extr. SO ₄ (ug/g)	Avail. P (ug/g)	Total P (ug/g)	Avail. Al (ug/g)
9833	Ap	0-10	10YR 3/2	8	64	28	7.22	6.76	2.54	1.88		11.0		630	
9834	Ap	0-10	10YR 3/2	8	64	28	7.21	6.74	2.59	2.10		15.0		680	
9831	Ap	25	10YR 3/3	7	63	30	7.30	6.76	2.11	1.65		9.6		680	
9832	Ap	25	10YR 3/3	7	65	28	7.18	6.67	2.35	1.69		12.0		620	
9829	Bm	35	10YR 5/4	3	64	33	7.18	6.70	0.96	0.85		8.4		780	
9830	Bm	35	10YR 5/4	3	62	35	7.29	6.83	0.73	0.72		9.2		820	

SOIL PROFILE INFORMATION (cont'd.)

Site: Nanticoke Seedling Plot, B-3

Classification: Orthic Melanic Brunisol

Sample No.	Horizon	Exchangeable Cations (ug/g)				C.E.C. (m.e.) 100g	Pyrophosphate (%)			Dithionite (%)			CaCO ₃ (%)	Metals (ug/g)			
		Ca	Mg	K	Al		Fe	Al	Mn	Fe	Al	Mn		Zn	Cu	Ni	Pb
9833	Ap	3202	311.0	96.5		18.74	0.06	0.05	0.0190	1.31	0.18	0.091	2	88	30	24	17
9834	Ap	3385	347.0	116.2		20.00	0.06	0.04	0.0210	1.17	0.16	0.087	2	95	32	25	16
9831	Ap	3068	200.0	47.8		17.07	0.07	0.05	0.0140	1.34	0.18	0.096	2	93	39	24	13
9832	Ap	3113	245.4	47.8		17.65	0.07	0.05	0.0180	1.36	0.18	0.090	3	88	29	23	14
9829	Bm	2552	189.0	50.7		14.45	0.08	0.05	0.0056	1.33	0.19	0.064	2	88	35	30	10
9830	Bm	2007	192.0	58.1		13.19	0.07	0.04	0.0053	1.38	0.18	0.066	2	90	44	32	11

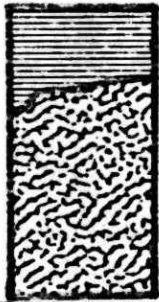
SOIL PROFILE INFORMATION

Horizon Depth

Site: Nanticoke Seedling Plot, B-2

Date: 80/09/11

Ap



0

20

40

Bmgj

60

Location Code: 2001101

Parent Material: lacustrine clay

UTM: 17T 5700800.0 4747400.0

Vegetation: eastern white pine, white birch
white ash

Classification: Orthic Melanic Brunisol

Landform: clay plain

Comments: faint mottling in Bm (10YR 5/8)

Slope: level

Sample No.	Horizon	Depth (cm)	Colour	Sand (%)	Silt (%)	Clay (%)	pH (H ₂ O)	pH (CaCl ₂)	Organic C (%)	Total Nitrogen (mg/g)	Extr. S (ug/g)	Extr. SO ₄ (ug/g)	Avail. P (ug/g)	Total P (ug/g)	Avail. Al (ug/g)
9839	Ap	0-10	10YR 4/3	30	44	26	7.07	6.54	2.18	1.66		13.0		510	
9840	Ap	0-10	10YR 4/3	30	43	27	7.14	6.66	2.74	1.83		17.0		540	
9837	Apk	15	10YR 5/3	31	28	42	7.12	6.61	1.73	1.17		8.5		450	
9838	Apk	15	10YR 5/3	30	42	28	7.13	6.55	1.78	1.27		9.0		490	
9835	Bmgj	35	10YR 4/3	15	35	49	7.05	6.60	0.45	0.73		13.0		500	
9836	Bmgj	35	10YR 4/3	21	54	25	7.06	6.57	0.29	0.75		9.7		470	

SOIL PROFILE INFORMATION (cont'd.)

Site: Nanticoke Seedling Plot, B-2

Classification: Orthic Melanic Brunisol

Sample No.	Horizon	Exchangeable Cations (ug/g)				C.E.C. (m.e.) 100g	Pyrophosphate (%)			Dithionite (%)			CaCO ₃ (%)	Metals (ug/g)			
		Ca	Mg	K	Al		Fe	Al	Mn	Fe	Al	Mn		Zn	Cu	Ni	Pb
9839	Ap	2074	235.0	101.4		12.50	0.07	0.02	0.0055	1.1	0.17	0.030	2	82	20	17	16
9840	Ap	2172	245.0	141.1		13.17	0.07	0.02	0.0066	1.1	0.16	0.027	2	87	17	18	19
9837	Apk	2074	230.0	47.8		12.33	0.09	0.03	0.0054	1.2	0.17	0.039	5	85	23	17	14
9838	Apk	2153	220.0	57.5		12.67	0.07	0.02	0.0043	1.0	0.16	0.026	9	86	30	16	14
9835	Bmgj	2593	42.1	47.0		13.46	0.10	0.04	0.0035	1.6	0.19	0.054	2	120	31	33	12
9836	Bmgj	1740	340.0	40.9		11.53	0.12	0.05	0.0030	1.5	0.19	0.067	2	130	22	24	11

SOIL PROFILE INFORMATION

Horizon	Depth	Site: Nanticoke Seedling Plot, A-3	Date: 80/09/11
Ap	0	Location Code: 2001102	Parent Material: deltaic sand
Bm	20	UTM: 17T 561700.0 4739450.0	Vegetation: eastern white pine, white birch white ash
Bh	40	Classification: Orthic Melanic Brunisol	
Bk	60	Landform: sand plain	Comments: exceedingly stoney in Ck black layer between 40-50 cm.
Ck	80	Slope: level	



Sample No.	Horizon	Depth (cm)	Colour	Sand (%)	Silt (%)	Clay (%)	pH (H ₂ O)	pH (CaCl ₂)	Organic C (%)	Total Nitrogen (mg/g)	Extr. S (ug/g)	Extr. SO ₄ (ug/g)	Avail. P (ug/g)	Total P (ug/g)	Avail. Al (ug/g)
9851	Ap	0-10	10YR 4/2	69	21	10	7.94	7.45	3.13	1.51		8.1		500	
9852	Ap	0-10	10YR 4/2	69	21	10	8.06	7.44	2.58	1.42		9.6		470	
9849	Ap	25	10YR 3/2	70	20	10	8.00	7.53	2.70	1.25		8.0		460	
9850	Ap	25	10YR 3/2	67	22	10	7.95	7.49	2.61	1.39		7.3		500	
9847	Bm	30-40	10YR 5/6	80	13	7	7.97	7.36	1.30	0.57		2.7		410	
9848	Bm	30-40	10YR 5/6	85	8	7	7.98	7.42	0.68	0.33		3.1		500	
9845	Bh	40-50	10YR2.5/1	72	17	11	7.97	7.31	5.2	2.17		7.0		520	
9846	Bh	40-50	10YR2.5/1	68	21	11	7.89	7.27	5.67	2.15		8.2		540	
9843	Bk	50-55	10YR 5/6	80	13	7	8.45	7.65	0.82	0.41		3.4		420	
9844	Bk	50-55	10YR 5/6	81	11	7	8.27	7.67	0.41	0.39		4.7		500	
9841	Ck	60	10YR 7/1	91	5	4	8.63	7.88	0.37	0.16		2.4		360	
9842	Ck	60	10YR 7/1	92	5	3	8.64	7.86	0.29	0.18		2.1		510	

SOIL PROFILE INFORMATION (cont'd.)

Site: Nanticoke Seedling Plot, A-3

Classification: Orthic Melanic Brunisol

Sample No.	Horizon	Exchangeable Cations (ug/g)				C.E.C. (m.e.) 100g	Pyrophosphate (%)			Dithionite (%)			CaCO ₃ (%)	Metals (ug/g)			
		Ca	Mg	K	Al		Fe	Al	Mn	Fe	Al	Mn		Zn	Cu	Ni	Pb
9851	Ap	1437	86.5	62.3		8.04	0.15	0.10	0.0340	1.20	0.21	0.045	4	92	18	11.0	22.0
9852	Ap	1510	81.9	72.0		8.39	0.15	0.10	0.0310	1.20	0.22	0.043	2	92	17	11.0	23.0
9849	Ap	1428	72.6	62.3		7.88	0.19	0.14	0.0250	1.20	0.25	0.041	2	86	14	11.0	15.0
9850	Ap	1401	54.3	62.3		7.60	0.16	0.11	0.0270	1.20	0.22	0.046	2	91	17	11.0	20.0
9847	Bm	847	81.0	11.9		4.92	0.11	0.06	0.0065	1.10	0.17	0.046	2	75	54	12.0	15.0
9848	Bm	647	83.4	16.7		3.95	0.11	0.22	0.0040	1.20	0.17	0.034	3	70	12	13.0	38.0
9845	Bh	1902	239.0	9.5		11.83	0.18	0.14	0.0250	1.20	0.24	0.110	1	70	21	10.0	9.7
9846	Bh	2063	250.0	14.3		12.05	0.19	0.14	0.0290	1.10	0.24	0.110	2	65	22	10.0	8.6
9843	Bk	1013	105.0	11.9		5.96	0.07	0.03	0.0036	1.20	0.14	0.068	23	77	31	16.0	17.0
9844	Bk	737	93.1	9.5		4.44	0.08	0.04	0.0036	1.10	0.14	0.044	6	60	33	13.0	11.0
9841	Ck	396	31.7	4.7		2.24	0.00	0.00	0.0028	0.51	0.04	0.190	50	38	19	6.5	5.8
9842	Ck	472	38.6	9.5		2.69	0.01	0.00	0.0025	0.56	0.05	0.021	47	40	28	6.7	8.8

SOIL PROFILE INFORMATION

Horizon Depth

Site: Nanticoke Seedling Plot, D-4

Date: 80/09/12

Ap

0

Location Code: 2001103

Parent Material: lacustrine clay

Apg

20

UTM: 17T 596300.0 4755200.0

Vegetation: eastern white pine, white birch,
white ash

Bt/Cg

40

Classification: Humic Luvis Gleysol

Landform: clay plain

Comments: many, medium mottles (5YR 6/8) in
Bt/C, faint mottles (10YR 6/8) in
Apg

Slope: level

Sample No.	Horizon	Depth (cm)	Colour	Sand (%)	Silt (%)	Clay (%)	pH (H ₂ O)	pH (CaCl ₂)	Organic C (%)	Total Nitrogen (mg/g)	Extr. S (ug/g)	Extr. SO ₄ (ug/g)	Avail. P (ug/g)	Total P (ug/g)	Avail. Al (ug/g)
9857	Ap	0-12	10YR 4/3	8	51	41	5.33	4.67	5.30	4.26		49		930	
9858	Ap	0-12	10YR 4/3	9	50	41	5.33	4.64	5.08	3.72		47		850	
9855	Apg	12-20	10YR 4/1	7	53	40	5.28	4.55	2.78	2.16		26		670	
9856	Apg	12-20	10YR 4/1	9	51	40	5.39	4.64	4.23	2.88		36		830	
9853	Bt/Cg	30	10YR 6/2	2	45	53	5.03	4.41	0.63	0.90		35		380	
9854	Bt/Cg	30	10YR 6/2	2	49	50	5.08	4.43	0.85	0.92		30		330	


SOIL PROFILE INFORMATION (cont'd.)

Site: Nanticoke Seedling Plot, D-4

Classification: Humic Luvic Gleysol

Sample No.	Horizon	Exchangeable Cations (ug/g)				C.E.C. (m.e.) 100g	Pyrophosphate (%)			Dithionite (%)			CaCO ₃ (%)	Metals (ug/g)			
		Ca	Mg	K	Al		Fe	Al	Mn	Fe	Al	Mn		Zn	Cu	Ni	Pb
9857	Ap	1521	302	130	55	0.73 1	0.52	0.19	0.0270	1.4	0.27	0.032		115	21	25	25.0
9858	Ap	1494	282	108	54	5.40 1	0.49	0.20	0.0280	1.3	0.27	0.031		110	21	24	22.0
9855	Apg	1080	272	87	144	9.26	0.35	0.20	0.0098	1.3	0.26	0.013		97	21	22	12.0
9856	Apg	1256	282	108	99	9.80	0.44	0.23	0.0210	1.2	0.28	0.024		110	24	23	15.0
9853	Bt/Cg	842	333	119	265	9.82	0.26	0.16	0.0008	2.2	0.25	0.004		91	27	30	12.0
9854	Bt/Cg	842	302	152	253	9.54	0.24	0.16	0.0012	1.7	0.23	0.003		90	25	29	9.8

SOIL PROFILE INFORMATION

Horizon	Depth	Site: Nanticoke Seedling Plot, D-3	Date: 80/09/12
Apk	0	Location Code: 2001104	Parent Material: lacustrine clay
	20	UTM: 17T 590000.0 4749400.0	Vegetation: eastern white pine, white birch, white ash, grasses
		Classification: Humic Luvic Gleysol	
	40	Landform: clay plain	Comments: many, small mottles (10YR 5/8) in Btg
Btg		Slope: level	

Sample No.	Horizon	Depth (cm)	Colour	Sand (%)	Silt (%)	Clay (%)	pH (H ₂ O)	pH (CaCl ₂)	Organic C (%)	Total Nitrogen (mg/g)	Extr. S (ug/g)	Extr. SO ₄ (ug/g)	Avail. P (ug/g)	Total P (ug/g)	Avail. Al (ug/g)
9863	Apk	0-10	10YR 4/1	14	38	48	6.75	6.36	4.19	3.41		37		2200	
9864	Ap	0-10	10YR 4/1	16	75	8	6.76	6.36	4.26	3.32		50		2920	
9861	Ap	20	10YR 4/2	14	37	49	6.97	6.54	2.86	2.64		39		2840	
9862	Apk	20	10YR 4/2	13	39	48	6.94	6.54	3.03	2.83		45		2720	
9859	Btg	35	10YR 5/2	5	30	65	7.37	7.11	0.68	0.87		122		850	
9860	Btg	35	10YR 5/2	5	30	65	7.28	6.98	0.92	1.02		91		1120	

SOIL PROFILE INFORMATION (cont'd.)

Site: Nanticoke Seedling Plot, D-3

Classification: Humic Luvic Gleysol

Sample No.	Horizon	Exchangeable Cations (ug/g)				C.E.C. (m.e.) 100g	Pyrophosphate (%)			Dithionite (%)			CaCO ₃ (%)	Metals (ug/g)			
		Ca	Mg	K	Al		Fe	Al	Mn	Fe	Al	Mn		Zn	Cu	Ni	Pb
9863	Apk	2807	613	642		20.56	0.49	0.10	0.0180	1.9	0.20	0.089	18	160	41	29	32
9864	Ap	2872	607	635		20.81	0.50	0.10	0.0190	1.9	0.20	0.100	3	160	42	29	31
9861	Ap	2494	619	826		19.49	0.48	0.08	0.0110	1.8	0.20	0.082	2	140	30	31	24
9862	Apk	2597	619	798		19.94	0.51	0.09	0.0120	1.8	0.20	0.085	13	150	35	31	26
9859	Btg	1583	827	826		16.61	0.19	0.05	0.0050	1.6	0.18	0.051	1	120	41	46	14
9860	Btg	2036	799	805		18.59	0.22	0.05	0.0083	1.7	0.20	0.070	2	120	31	39	13

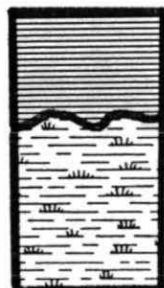
SOIL PROFILE INFORMATION

Horizon Depth

Site: Nanticoke Seedling Plot, A-2

Date: 80/09/12

Ap



0

Location Code: 2001105

Parent Material: lacustrine clay

UTM: 17T 569000.0 4739100.0

Vegetation: eastern white pine, white birch
white ash

20

Classification: Orthic Humic Gleysol

Landform: clay plain

Comments: many mottles (10YR 5/8) in Bmg

Bmg

40

Slope: level

Sample No.	Horizon	Depth (cm)	Colour	Sand (%)	Silt (%)	Clay (%)	pH (H ₂ O)	pH (CaCl ₂)	Organic C (%)	Total Nitrogen (mg/g)	Extr. S (ug/g)	Extr. SO ₄ (ug/g)	Avail. P (ug/g)	Total P (ug/g)	Avail. Al (ug/g)
9869	Ap	0-10	10YR 4/2	19	42	39	7.08	6.62	4.95	3.48		13		850	
9870	Ap	0-10	10YR 4/2	19	44	37	7.05	6.72	4.89	3.22		19		770	
9867	Ap	18	10YR 3/1	18	4	78	7.13	6.64	3.72	2.66		15		660	
9868	Ap	18	10YR 3/1	18	45	37	7.11	6.61	4.42	3.0		21		780	
9865	Bmg	30	10YR 4/1	15	58	26	7.31	6.87	0.77	0.63		12		250	
9866	Bmg	30	10YR 4/1	14	46	40	7.34	6.96	0.78	0.66		13		260	

SOIL PROFILE INFORMATION (cont'd.)

Site: Nanticoke Seedling Plot, A-2

Classification: Orthic Humic Gleysol

Sample No.	Horizon	Exchangeable Cations (ug/g)				C.E.C. (m.e.) 100g	Pyrophosphate (%)			Dithionite (%)			CaCO ₃ (%)	Metals (ug/g)			
		Ca	Mg	K	Al		Fe	Al	Mn	Fe	Al	Mn		Zn	Cu	Ni	Pb
9869	Ap	3447	377	160.0		20.62	0.21	0.07	0.0360	1.2	0.16	0.066	4	160	24	22	44
9870	Ap	3447	388	143.0		20.67	0.20	0.07	0.0300	1.2	0.16	0.060	2	160	23	22	44
9867	Ap	2990	346	114.0		18.01	0.19	0.06	0.0160	1.3	0.16	0.059	2	160	30	22	34
9868	Ap	3296	367	149.0		19.81	0.18	0.06	0.1900	1.2	0.16	0.063	1	170	25	19	39
9865	Bmg	1740	334	58.1		3.53	0.17	0.06	0.0069	1.4	0.18	0.056	2	110	11	24	11
9866	Bmg	1952	328	66.0		12.59	0.17	0.05	0.0069	1.4	0.17	0.057	2	110	22	26	12

SOIL PROFILE INFORMATION

Horizon Depth

Site: Nanticoke Seedling Plot, C-3

Date: 80/09/12

Ap

0

Location Code: 2001106

Parent Material: lacustrine clay

UTM: 17T 579750.0 4755400.0

Vegetation: eastern white pine, white birch,
white ash

20

Classification: Gleyed Gray Brown Luvisol

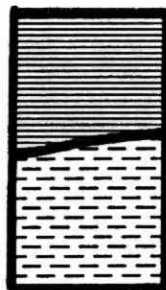
Landform: clay plain

Comments: faint mottling in Btgj

Btgj

40

Slope: level



Sample No.	Horizon	Depth (cm)	Colour	Sand (%)	Silt (%)	Clay (%)	pH (H ₂ O)	pH (CaCl ₂)	Organic C (%)	Total Nitrogen (mg/g)	Extr. S (ug/g)	Extr. SO ₄ (ug/g)	Avail. P (ug/g)	Total P (ug/g)	Avail. Al (ug/g)
9875	Ap	0-10	10YR 3/2	12	46	42	7.40	7.02	3.42	2.76		15.0		660	
9876	Ap	0-10	10YR 3/2	12	46	42	7.47	7.03	4.36	3.08		22.0		700	
9873	Ap	20	10YR 4/2	13	42	45	7.43	6.85	2.42	2.17		9.8		630	
9874	Ap	20	10YR 4/2	13	44	43	7.41	6.99	2.70	2.33		17.0		630	
9871	Btgj	30	10YR 4/3	9	36	55	7.22	6.85	0.85	0.94		9.3		710	
9872	Btgj	30	10YR 4/3	9	37	54	7.36	6.82	0.81	1.06		11.0		750	

SOIL PROFILE INFORMATION (cont'd.)

Site: Nanticoke Seedling Plot, C-3

Classification: Gleyed Gray Brown Luvisol

Sample No.	Horizon	Exchangeable Cations (ug/g)				C.E.C. (m.e.) 100g	Pyrophosphate (%)			Dithionite (%)			CaCO ₃ (%)	Metals (ug/g)			
		Ca	Mg	K	Al		Fe	Al	Mn	Fe	Al	Mn		Zn	Cu	Ni	Pb
9875	Ap	3447	464	189.0		21.39	0.09	0.05	0.0200	1.5	0.18	0.098	1	110	25	28	27
9876	Ap	3599	475	223.0		22.36	0.08	0.05	0.0220	1.4	0.19	0.094	2	120	28	29	32
9873	Ap	3599	421	75.2		21.56	0.09	0.05	0.0140	1.4	0.17	0.087	2	98	23	27	20
9874	Ap	3599	431	92.2		21.68	0.09	0.06	0.0180	1.5	0.19	0.100	2	110	25	28	23
9871	Btgj	4056	497	47.1		24.40	0.09	0.04	0.0041	1.5	0.19	0.051	3	100	35	40	14
9872	Btgj	3904	475	47.1		23.42	0.11	0.04	0.0046	1.6	0.21	0.059	2	97	35	40	13

SOIL PROFILE INFORMATION

Horizon

Depth

Site: Nanticoke Seedling Plot, C-2

Date: 80/09/26

Ahk

0

Location Code: 2001107

Parent Material: lacustrine clay

UTM: 17T 576600.0 4747350.0

Vegetation: eastern white pine, white birch,
white ash

Classification: Humic Luvic Gleysol

Landform: clay plain

Comments: slightly stoney in Bt, mottles in
Bt (10YR 5/8)

Btg

40

Slope: level

Sample No.	Horizon	Depth (cm)	Colour	Sand (%)	Silt (%)	Clay (%)	pH (H ₂ O)	pH (CaCl ₂)	Organic C (%)	Total Nitrogen (mg/g)	Extr. S (ug/g)	Extr. SO ₄ (ug/g)	Avail. P (ug/g)	Total P (ug/g)	Avail. Al (ug/g)
9877	Ahk	0-10	10YR2.5/1	13	49	39	7.49	7.10	8.11	5.16		78.0		4900	
9878	Ahk	0-10	10YR2.5/1	11	49	40	7.64	7.29	8.78	6.48		74.0		6480	
9879	Ahk	15	10YR2.5/1	15	52	33	7.56	7.21	6.49	3.79		53.0		4520	
9880	Ahk	15	10YR2.5/1	16	50	34	7.53	7.09	7.42	4.39		48.0		5150	
9881	Btg	30	10YR 5/3	8	45	47	7.70	7.33	0.74	0.92		27.0		960	
9882	Btg	30	10YR 5/3	6	48	45	7.68	7.30	1.09	1.03		32.0		1290	

SOIL PROFILE INFORMATION (cont'd.)

Site: Nanticoke Seedling Plot, C-2

Classification: Humic Luvic Gleysol

Sample No.	Horizon	Exchangeable Cations (ug/g)				C.E.C. (m.e.) 100g	Pyrophosphate (%)			Dithionite (%)			CaCO ₃ (%)	Metals (ug/g)			
		Ca	Mg	K	Al		Fe	Al	Mn	Fe	Al	Mn		Zn	Cu	Ni	Pb
9877	Ahk	4667	775	1009		32.03	0.19	0.05	0.0240	0.89	0.13	0.097	14	340	54	370	22
9878	Ahk	3904	855	640		27.94	0.20	0.05	0.0270	0.94	0.13	0.099	14	360	52	23	240
9879	Ahk	3904	848	696		27.99	0.21	0.05	0.0270	0.93	0.13	0.110	14	200	45	21	190
9880	Ahk	4514	861	696		31.19	0.21	0.05	0.0300	0.96	0.14	0.110	15	530	60	24	200
9881	Btg	1552	471	1290		14.73	0.24	0.06	0.0077	1.8	0.22	0.049	4	100	25	30	19
9882	Btg	1648	474	1031		14.60	0.28	0.06	0.0150	1.3	0.15	0.045	2	110	21	28	28

SOIL PROFILE INFORMATION

Horizon Depth

Site: Nanticoke Seedling Plot, A-4

Date: 80/09/26

Ah

0

Location Code: 2001108

Parent Material: deltaic sand

UTM: 17T 553750.0 4738550.0

Vegetation: eastern white pine, white birch,
white ash

Bm

20

Classification: (Gleyed) Eutric Brunisol

Landform: sand plain

Comments: depth to watertable 25 cm

40

Slope: level



Sample No.	Horizon	Depth (cm)	Colour	Sand (%)	Silt (%)	Clay (%)	pH (H ₂ O)	pH (CaCl ₂)	Organic C (%)	Total Nitrogen (mg/g)	Extr. S (ug/g)	Extr. SO ₄ (ug/g)	Avail. P (ug/g)	Total P (ug/g)	Avail. Al (ug/g)
9883	Ah	0-10	10YR2.5/0	68	20	12	7.12	6.55	4.51	2.28		9.5		700	
9884	Ah	0-10	10YR2.5/0	72	20	7	6.89	6.27	4.59	2.26		10.0		630	
9885	Bm	20	10YR 5/4	65	22	13	7.63	7.07	0.63	0.45		9.5		1010	
9886	Bm	20	10YR 5/4	61	26	13	7.50	7.02	0.55	0.32		7.8		990	

SOIL PROFILE INFORMATION (cont'd.)

Site: Nanticoke Seedling Plot, A-4

Classification: (Gleyed) Eutric Brunisol

Sample No.	Horizon	Exchangeable Cations (ug/g)				C.E.C. (m.e.) 100g	Pyrophosphate (%)			Dithionite (%)			CaCO ₃ (%)	Metals (ug/g)			
		Ca	Mg	K	Al		Fe	Al	Mn	Fe	Al	Mn		Zn	Cu	Ni	Pb
9883	Ah	2169	140	19.0		12.02	0.16	0.11	0.0084	1.3	0.18	0.024	1	85	26	12	14.0
9884	Ah	2364	155	97.8		13.30	0.18	0.12	0.0095	1.4	0.19	0.029	2	83	21	11	18.0
9885	Bm	1724	759	26.3		9.95	0.05	0.03	0.0031	1.7	0.20	0.081	4	75	31	27	5.4
9886	Bm	1552	146	23.5		8.99	0.04	0.03	0.0030	1.5	0.17	0.055	2	71	30	24	4.6

SOIL PROFILE INFORMATION

Horizon	Depth	Site: Nanticoke Seedling Plot, C-1	Date: 80/09/26
Ah	0	Location Code: 2001110	Parent Material: lacustrine clay
Bt	20	UTM:17T 577250.0 4743400.0	Vegetation: eastern white pine, white birch, white ash
Btgj	40	Classification: Orthic Gray Brown Luvisol	Comments: abundant stones in Ah mottles in Bt (10YR 5/3)
		Landform: clay plain	
		Slope: level	

Sample No.	Horizon	Depth (cm)	Colour	Sand (%)	Silt (%)	Clay (%)	pH (H ₂ O)	pH (CaCl ₂)	Organic C (%)	Total Nitrogen (mg/g)	Extr. S (ug/g)	Extr. SO ₄ (ug/g)	Avail. P (ug/g)	Total P (ug/g)	Avail. Al (ug/g)
9891	Ah	0-15	10YR 4/2	17	31	52	6.16	5.93	2.09	1.74		15		530	
9892	Ah	0-15	10YR 4/2	13	43	44	6.16	5.93	2.17	1.84		16		520	
9893	Bt	25	10YR 5/8	9	30	61	7.22	6.83	0.59	0.82		18		340	
9894	Bt	25	10YR 5/8	7	34	59	7.10	6.72	0.73	0.91		17		360	
9895	Btgj	40	10YR 4/3	7	30	63	7.78	7.44	0.59	0.72		33		520	
9896	Btgj	40	10YR 4/3	6	30	65	7.54	7.18	0.59	0.73		23		570	

SOIL PROFILE INFORMATION (cont'd.)

Site: Nanticoke Seedling Plot, C-1

Classification: Orthic Gray Brown Luvisol

Sample No.	Horizon	Exchangeable Cations (ug/g)				C.E.C. (m.e.) 100g	Pyrophosphate (%)			Dithionite (%)			CaCO ₃ (%)	Metals (ug/g)			
		Ca	Mg	K	Al		Fe	Al	Mn	Fe	Al	Mn		Zn	Cu	Ni	Pb
9891	Ah	2746	464	114.0		17.74	0.14	0.06	0.0098	1.7	0.200	0.068	2	120	21	30	21
9892	Ah	2728	459	126.0		17.63	0.14	0.06	0.0120	1.7	0.200	0.079	3	110	22	27	19
9893	Bt	3296	793	80.9		23.05	0.13	0.04	0.0052	1.9	0.230	0.063	2	130	41	46	14
9894	Bt	3123	824	97.8		22.46	0.14	0.05	0.0045	1.8	0.220	0.039	2	110	36	36	12
9895	Btgj	3751	867	75.2		25.93	0.08	0.03	0.0041	1.7	0.004	0.045	1	110	41	46	12
9896	Btgj	3599	367	80.9		25.14	0.09	0.04	0.0037	1.7	0.001	0.062	2	120	42	50	14

SOIL PROFILE INFORMATION

Horizon	Depth	Site: Waterloo County, Fox Series	Date: 80/10/01
Ap	0	Location Code: 2001111	Parent Material: sandy outwash
Bm	20	UTM: 17T 544500.0 4800950.0	Vegetation: grassland
	40	Classification: Orthic Melanic Brunisol	
Bk	60	Landform: kame moraine	Comments: samples taken from roadcut
Ck	80	Slope: gentle slopes	many stones in Ap, soil resurvey



Sample No.	Horizon	Depth (cm)	Colour	Sand (%)	Silt (%)	Clay (%)	pH (H ₂ O)	pH (CaCl ₂)	Organic C (%)	Total Nitrogen (mg/g)	Extr. S (ug/g)	Extr. SO ₄ (ug/g)	Avail. P (ug/g)	Total P (ug/g)	Avail. Al (ug/g)
9905	Ap	0-31	10YR 3/3	88	7	5	7.85	7.51	0.59	0.55		5.6		350	
9906	Apk	0-31	10YR 3/3	87	6	7	8.10	7.50	0.61	0.72		4.3		500	
9903	Bm	31-43	10YR 5/8	89	9	2	8.12	7.37	0.13	0.18		3.2		460	
9904	Bm	31-43	10YR 5/8	89	7	4	7.94	7.37	0.09	0.16		4.1		400	
9901	Bm	43-66	10YR 5/6	90	5	5	8.17	7.29	0.09	0.09		1.2		320	
9902	Bm	43-66	10YR 5/6	91	5	4	7.92	7.34	0.09	0.13		1.9		380	
9899	Bk	66-78	5YR 4/6	92	3	5	8.30	7.78	0.23	0.14		1.1		330	
9900	Bk	66-78	5YR 4/6	92	3	5	8.03	7.40	0.05	0.12		1.2		400	
9897	Ck	79	10YR 5/4	89	7	4	8.75	7.83	0.23	0.12		0.5		390	
9898	Ck	79	10YR 5/4	91	4	4	8.76	7.95	0.16	0.13		0.6		330	

SOIL PROFILE INFORMATION (cont'd.)

Site: Waterloo County, Fox Series

Classification: Orthic Melanic Brunisol

Sample No.	Horizon	Exchangeable Cations (ug/g)				C.E.C. (m.e.) 100g	Pyrophosphate (%)			Dithionite (%)			CaCO ₃ (%)	Metals (ug/g)			
		Ca	Mg	K	Al		Fe	Al	Mn	Fe	Al	Mn		Zn	Cu	Ni	Pb
9905	Ap	950	60.8	30.2		5.32	0.03	0.02	0.0079	0.42	0.800	0.050	4	95	52	5.2	16.0
9906	Apk	934	60.8	35.8		5.25	0.02	0.02	0.0066	0.37	0.080	0.035	8	86	17	4.5	15.0
9903	Bm	341	25.5	9.5		1.93	0.06	0.07	0.0034	0.56	0.130	0.021	2	120	15	8.0	19.0
9904	Bm	341	25.5	9.5		1.93	0.06	0.07	0.0034	0.42	0.100	0.015	3	110	42	7.0	18.0
9901	Bm	302	27.9	6.7		1.75	0.03	0.03	0.0026	0.42	0.001	0.035	3	150	19	3.2	23.0
9902	Bm	310	23.0	6.7		1.75	0.04	0.04	0.0039	0.49	0.001	0.034	3	130	35	6.7	23.0
9899	Bk	427	37.7	15.1		2.48	0.02	0.02	0.0034	0.49	0.001	0.040	23	170	48	7.3	20.0
9900	Bk	388	40.2	9.5		2.28	0.02	0.02	0.0026	0.39	0.001	0.031	4	140	23	6.7	18.0
9897	Ck	334	26.7	13.7		1.92	0.01	0.01	0.0032	0.22	0.001	0.014	45	92	33	5.9	11.0
9898	Ck	287	25.5	9.5		1.66	0.01	0.04	0.0032	0.24	0.001	0.017	38	110	33	5.5	9.9

SOIL PROFILE INFORMATION

Horizon Depth Site: Waterloo County, Hawkesville Series Date: 80/10/01

Ahg 0 Location Code: 2001112 Parent Material: glacial/fluviail sand

Bg 20 UTM: 17T 535300.0 4802450.0 Vegetation: ash, poplar, yellow birch, beech

Ckg 40 Classification: Orthic Humic Gleysol

60 Landform: spillway Comments: depth to watertable 55 cm

distinct mottles (10YR 5/4) in Ck
mottles (10YR 5/8) in Ah, soil
resurvey

Slope: moderate slopes

Sample No.	Horizon	Depth (cm)	Colour	Sand (%)	Silt (%)	Clay (%)	pH (H ₂ O)	pH (CaCl ₂)	Organic C (%)	Total Nitrogen (mg/g)	Extr. S (ug/g)	Extr. SO ₄ (ug/g)	Avail. P (ug/g)	Total P (ug/g)	Avail. Al (ug/g)
9915	Ahg	0-35	10YR2.5/1	70	22	8	7.59	7.10	4.35	2.47		21.0		1380	
9916	Ahg	0-35	10YR2.5/1	64	28	8	7.46	7.03	4.22	2.08		19.0		1060	
9913	Bg	35-46	10YR 5/4	73	17	10	8.08	7.51	0.39	0.30		3.4		790	
9914	Bg	35-46	10YR 5/4	81	10	8	7.77	7.39	0.27	0.19		3.8		650	
9911	Bg	46-50	10YR 5/4	78	21	1	7.97	7.56	0.19	0.17		4.4		370	
9912	Bg	46-50	10YR 5/4	81	9	10	7.96	7.44	0.27	0.29		4.4		780	
9909	Ckg	50-56	10YR 5/4				8.44	7.82	0.07	0.13		2.9		510	
9910	Ckg	50-56	10YR 5/4	85	11	4	8.53	7.89	0.05	0.09		3.1		500	
9907	Ckg	56	10YR 5/4	84	16	0	8.42	7.86	0.24	0.17		3.7		480	
9908	Ckg	56	10YR 5/4				7.62	7.84	0.21	0.20		3.9		550	

SOIL PROFILE INFORMATION (cont'd.)

Site: Waterloo County, Hawkesville Series

Classification: Orthic Humic Gleysol

Sample No.	Horizon	Exchangeable Cations (ug/g)				C.E.C. (m.e.) 100g	Pyrophosphate (%)			Dithionite (%)			CaCO ₃ (%)	Metals (ug/g)			
		Ca	Mg	K	Al		Fe	Al	Mn	Fe	Al	Mn		Zn	Cu	Ni	Pb
9915	Ahg	2956	508.0	58.3		19.02	0.31	0.22	0.0530	1.50	0.18	0.206	2	130	58	19.0	21.0
9916	Ahg	3105	520.0	58.0		19.81	0.24	0.13	0.0780	1.10	0.15	0.123	2	120	52	17.0	27.0
9913	Bg	966	145.0	30.2		6.07	0.07	0.04	0.0035	1.90	0.12	0.076	3	96	39	11.0	8.6
9914	Bg	620	120.0	35.8		4.15	0.09	0.02	0.0041	1.40	0.10	0.036	4	97	40	9.6	8.4
9911	Bg	701	115.0	26.3		4.50	0.04	0.00	0.0052	1.30	0.08	0.031	5	77	32	8.3	7.6
9912	Bg	726	136.0	29.2		4.79	0.05	0.00	0.0041	1.90	0.11	0.046	3	98	42	8.0	8.9
9909	Ckg	587	90.1	26.3		3.73	0.02	0.00	0.0029	0.41	0.04	0.009	9	35	51	2.9	7.8
9910	Ckg	459	70.0	23.5		2.92	0.01	0.00	0.0032	0.86	0.06	0.014	20	60	56	4.4	12.0
9907	Ckg	660	90.1	23.5		4.08	0.01	0.00	0.0034	0.41	0.04	0.015	21	29	33	2.4	4.4
9908	Ckg	652	90.1	23.5		4.04	0.03	0.00	0.0055	0.43	0.05	0.014	20	46	43	3.3	6.0

SOIL PROFILE INFORMATION

Horizon Depth

Site: Waterloo County, Elmira Series

Date: 80/10/02

Apk

0

Location Code: 2001113

Parent Material: gravelly till

20

UTM: 17 T 549750.0 4815600.0

Vegetation: grass, pine

Ck₁

40

Classification: Orthic Humic Regosol

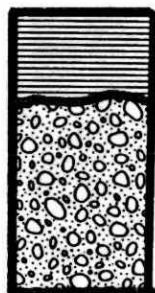
Landform: till plain

Comments: exceedingly stoney, soil resurvey

Ck₂

60

Slope: level



Sample No.	Horizon	Depth (cm)	Colour	Sand (%)	Silt (%)	Clay (%)	pH (H ₂ O)	pH (CaCl ₂)	Organic C (%)	Total Nitrogen (mg/g)	Extr. S (ug/g)	Extr. SO ₄ (ug/g)	Avail. P (ug/g)	Total P (ug/g)	Avail. Al (ug/g)
9923	Apk	0-23	10YR 3/2	61	25	14	7.95	7.52	2.89	1.64		9.0		580	
9924	Apk	0-23	10YR 3/2	59	27	14	7.99	7.58	1.88	1.60		6.6		570	
9921	Ck ₁	23-38	7.5YR 4/4	81	12	6	8.30	7.75	0.44	0.37		2.7		380	
9922	Ck ₁	23-38	7.5YR 4/4	80	14	6	8.24	7.74	0.47	0.35		2.6		340	
9919	Ck ₂	38-57	10YR 4/4	92	5	3	8.26	7.83	0.25	0.39		2.5		430	
9920	Ck ₂	38-57	10YR 4/4	86	10	4	8.23	7.80	0.29	0.36		3.4		320	
9917	Ck ₂	57	10YR 6/4	91	6	3	8.55	7.89	0.33	0.28		1.8		390	
9918	Ck ₂	57	10YR 6/4	92	5	2	8.53	7.93	0.21	0.17		1.6		410	

SOIL PROFILE INFORMATION (cont'd.)

Site: Waterloo County, Elmira Series

Classification: Orthic Humic Regosol

Sample No.	Horizon	Exchangeable Cations (ug/g)				C.E.C. (m.e.) 100g	Pyrophosphate (%)			Dithionite (%)			CaCO ₃ (%)	Metals (ug/g)			
		Ca	Mg	K	Al		Fe	Al	Mn	Fe	Al	Mn		Zn	Cu	Ni	Pb
9923	Apk	2082	251	35.0		12.35	0.09	0.05	0.0230	1.2	0.16	0.103	16	170	37	16.0	38
9924	Apk	2030	231	35.0		12.25	0.08	0.04	0.190	0.94	0.12	0.079	19	150	56	12.0	31
9921	Ck1	826	97	17.9		4.95	0.04	0.02	0.0046	0.58	0.06	0.042	45	150	41	7.8	20
9922	Ck1	988	125	17.9		5.99	0.04	0.02	0.0047	0.68	0.07	0.045	44	160	18	9.5	22
9919	Ck2	547	72	9.5		3.34	0.02	0.01	0.0041	0.35	0.03	0.018	65	150	62	7.2	28
9920	Ck2	735	100	15.1		4.52	0.03	0.02	0.0041	0.51	0.05	0.031	45	130	44	7.8	23
9917	Ck2	467	55	9.5		2.80	0.02	0.01	0.0045	0.48	0.04	0.022	62	215	82	7.2	30
9918	Ck2	412	52	9.5		2.50	0.01	0.00	0.0025	0.43	0.04	0.020	65	210	56	5.4	24

SOIL PROFILE INFORMATION

Horizon	Depth	Site: Waterloo County, London Series	Date: 80/10/02
Ahk	0	Location Code: 2001114	Parent Material: sandy till
Bm	20	UTM: 17T 550000.0 4817150.0	Vegetation: pine, grasses
Bk	30	Classification: Orthic Melanic Brunisol	
Ck	40	Landform: kame moraine	Comments: exceedingly stoney close proximity to gravel pit
		Slope: moderate slope	



Sample No.	Horizon	Depth (cm)	Colour	Sand (%)	Silt (%)	Clay (%)	pH (H ₂ O)	pH (CaCl ₂)	Organic C (%)	Total Nitrogen (mg/g)	Extr. S (ug/g)	Extr. SO ₄ (ug/g)	Avail. P (ug/g)	Total P (ug/g)	Avail. Al (ug/g)
9931	Ahk	0-20	10YR 3/3	47	38	15	8.01	7.51	2.58	1.33		8.5		390	
9932	Ahk	0-20	10YR 3/3	46	38	15	7.96	7.48	1.92	1.50		9.6		450	
9929	Bm	20-30	10YR 5/4	33	52	15	8.11	7.67	0.86	0.79		17.0		360	
9930	Bm	20-30	10YR 5/4	32	54	14	8.13	7.68	1.13	0.97		11.0		330	
9927	Bk	30-36	10YR 4/4	50	36	14	8.08	7.58	0.51	0.46		6.9		400	
9928	Bk	30-36	10YR 4/4	47	33	19	8.07	7.58	2.15	0.59		4.7		520	
9925	Ck	36	10YR 6/4	50	36	15	7.97	7.45	0.57	0.52		6.5		450	
9926	Ck	36	10YR 6/4	48	30	22	7.92	7.55	0.81	0.55		7.2		440	

SOIL PROFILE INFORMATION (cont'd.)

Site: Waterloo County, London Series

Classification: Orthic Melanic Brunisol

Sample No.	Horizon	Exchangeable Cations (ug/g)				C.E.C. (m.e.) 100g	Pyrophosphate (%)			Dithionite (%)			CaCO ₃ (%)	Metals (ug/g)			
		Ca	Mg	K	Al		Fe	Al	Mn	Fe	Al	Mn		Zn	Cu	Ni	Pb
9931	Ahk	1960	282	64.0		12.22	0.15	0.06	0.0175	0.90	0.14	0.049	10	130	22	13	23
9932	Ahk	1908	282	80.9		12.00	0.14	0.06	0.0213	0.89	0.14	0.050	13	120	35	13	30
9929	Bm	1495	221	17.9		9.29	0.27	0.11	0.0116	1.00	0.20	0.049	2	130	33	14	22
9930	Bm	1514	206	23.5		9.28	0.26	0.10	0.0139	1.00	0.19	0.042	3	120	38	14	25
9927	Bk	1391	260	20.7		9.09	0.17	0.09	0.0091	1.20	0.20	0.065	9	130	36	19	29
9928	Bk	1504	288	23.5		9.88	0.08	0.04	0.0172	1.10	0.12	0.085	18	160	34	14	33
9925	Ck	1327	251	23.5		8.71	0.14	0.07	0.0088	0.95	0.17	0.060	6	120	19	16	23
9926	Ck	1703	381	29.2		11.62	0.16	0.07	0.0096	1.26	0.20	0.068	15	150	24	21	40

SOIL PROFILE INFORMATION

Horizon Depth

Site: Waterloo County, Perth Series

Date: 80/10/29

Ahp

0

Location Code: 2001119

Parent Material: clayey till

Bt

30

UTM: 17T 521000.0 4831700.0

Vegetation: hawthorn

Ck

50

Classification: Orthic Gray Brown Luvisol

Landform: till plain/clay plain

Comments: gravel in Bt

Sample No.	Horizon	Depth (cm)	Colour	Sand (%)	Silt (%)	Clay (%)	pH (H ₂ O)	pH (CaCl ₂)	Organic C (%)	Total Nitrogen (mg/g)	Extr. S (ug/g)	Extr. SO ₄ (ug/g)	Avail. P (ug/g)	Total P (ug/g)	Avail. Al (ug/g)
9973	Ahp	0-5	10YR 3/2	7	62	31	7.35	6.92	6.34	5.41		24		1320	
9974	Ahp	0-5	10YR 3/2	8	69	23	7.46	7.02	7.44	5.98		22		1450	
9971	Ahp	5-8	10YR 3/2	9	71	20	7.33	6.91	4.19	3.09		15		1110	
9972	Ahp	5-8	10YR 3/2	8	72	21	7.30	6.84	5.23	4.46		17		1250	
9969	Bt	8-14	10YR 4/4	7	58	35	7.44	7.13	0.84	1.02		11		820	
9970	Bt	8-14	10YR 4/4	8	61	31	7.49	7.00	1.16	1.29		11		690	
9967	Bt	14	10YR 4/4	5	55	40	7.59	7.20	0.60	0.65		14		940	
9968	Bt	14	10YR 4/4	4	57	39	7.65	7.18	0.63	0.91		15		980	
9965	Bt/Ck	50+	10YR 4/4	4	69	27	7.99	7.54	0.65	0.73		12		950	
9966	Bt/C	50+	10YR 4/4	3	56	41	8.07	7.57	0.64	0.62		13		920	

SOIL PROFILE INFORMATION (cont'd.)

Site: Waterloo County, Perth Series

Classification: Orthic Gray Brown Luvisol

Sample No.	Horizon	Exchangeable Cations (ug/g)				C.E.C. (m.e.) 100g	Pyrophosphate (%)			Dithionite (%)			CaCO ₃ (%)	Metals (ug/g)			
		Ca	Mg	K	Al		Fe	Al	Mn	Fe	Al	Mn		Zn	Cu	Ni	Pb
9973	Ahp	4463	656.0	194.7		26.04	0.19	0.16	0.0750	1.06	0.22	0.080	3	140	44	21	24
9974	Ahp	4919	680.0	189.0		30.51	0.19	0.18	0.0940	1.17	0.18	0.086	3	140	43	21	29
9971	Ahp	3707	581.9	92.2		23.39	0.27	0.23	0.0840	1.14	0.18	0.074	2	130	27	23	20
9972	Ahp	4160	601.0	714.0		25.91	0.27	0.25	0.1100	1.17	0.21	0.083	1	140	43	23	20
9969	Bt	2383	440.0	57.4		15.56	0.14	0.08	0.0130	1.28	0.17	0.052	2	120	45	31	19
9970	Bt	2536	443.1	57.4		16.38	0.21	0.11	0.0220	1.30	0.18	0.051	1	120	38	27	15
9967	Bt	2383	424.0	51.8		15.43	0.11	0.05	0.0085	1.30	0.17	0.050	5	120	62	35	23
9968	Bt	2460	440.0	57.4		15.96	0.11	0.06	0.0075	1.25	0.17	0.054	1	130	49	37	19
9965	Bt/Ck	2612	430.0	40.4		4.64	0.08	0.04	0.0097	1.21	0.17	0.047	7	130	47	38	24
9966	Bt/C	2536	418.0	46.1		16.17	0.09	0.04	0.0120	1.24	0.17	0.049	3	130	68	22	38

SOIL PROFILE INFORMATION

Horizon

Depth

Site: Waterloo County, Maryhill Series

Date: 80/10/30

Ahp

0

Location Code: 2001120

Parent Material: clayey till

Bm

20

Classification: Gleyed Melanic Brunisol

40

Landform: till plain

Comments: calcium carbonate concretions in Cgk (10YR 7/2), some dolomitic stones in C and granitic stones in Bmj mottles (10YR 5/9) in Cg and Bm

Cgk

60

Slope: nearly level



Sample No.	Horizon	Depth (cm)	Colour	Sand (%)	Silt (%)	Clay (%)	pH (H ₂ O)	pH (CaCl ₂)	Organic C (%)	Total Nitrogen (mg/g)	Extr. S (ug/g)	Extr. SO ₄ (ug/g)	Avail. P (ug/g)	Total P (ug/g)	Avail. Al (ug/g)
9981	Ahp	0-15	10YR2.5/1	40	14	45	7.31	6.95	7.47	5.46		25		1410	
9982	Ahp	0-15	10YR2.5/1	22	46	32	7.34	6.88	8.41	6.52		23		1480	
9979	Bm	15-35	10YR 5/8	29	43	28	7.42	7.00	1.81	1.55		20		1040	
9980	Bm	15-35	10YR 5/8	26	44	30	7.36	7.03	1.70	1.53		22		990	
9977	Bm	35-48	10YR 5/8	34	32	34	7.57	7.18	0.55	0.45		13		940	
9978	Bm	35-48	10YR 5/8	28	40	32	7.56	7.10	0.81	0.65		15		890	
9975	Cg	48	10YR 5/8	11	51	38	7.76	7.24	0.32	0.41		15		870	
9976	Cgk	48	10YR 5/8	35	37	28	7.82	7.37	0.41	0.46		13		780	

SOIL PROFILE INFORMATION (cont'd.)

Site: Waterloo County, Maryhill Series

Classification: Gleyed Melanic Brunisol

Sample No.	Horizon	Exchangeable Cations (ug/g)				C.E.C. (m.e.) 100g	Pyrophosphate (%)			Dithionite (%)			CaCO ₃ (%)	Metals (ug/g)			
		Ca	Mg	K	Al		Fe	Al	Mn	Fe	Al	Mn		Zn	Cu	Ni	Pb
9981	Ap	4871	371.0	88.8		27.59	0.13	0.18	0.0032	0.58	0.12	0.009	2	130	34	19	28
9982	Ap	4871	388.0	117.8		27.79	0.13	0.18	0.0039	0.57	0.13	0.011	3	120	32	18	30
9979	Bm	2689	50.1	40.4		13.90	0.11	0.16	0.0020	0.92	0.13	0.010	2	130	30	20	28
9980	Bm	2744	549.0	85.2		18.30	0.11	0.16	0.0022	0.76	0.14	0.009	2	130	23	20	20
9977	Bm	1929	443.0	40.4		13.24	0.11	0.05	0.0028	1.68	0.14	0.027	2	110	31	20	22
9978	Bm	2307	474.0	43.3		15.41	0.12	0.09	0.0032	1.27	0.87	0.026	2	123	34	19	34
9975	Cg	1853	427.0	40.4		12.82	0.09	0.04	0.0020	1.56	0.16	0.065	2	130	40	29	16
9976	Cgk	1778	405.0	37.6		12.24	0.09	0.04	0.0029	1.28	0.17	0.018	16	98	31	22	18

SOIL PROFILE INFORMATION

Horizon Depth

Site: Wellesley

Date: 81/05/12

Ah 0

Location Code: 2001133

Parent Material: glacial till

20

UTM: 17T 519150.0 4812850.0

Vegetation: white birch

Bm 40

Classification: Gleyed Melanic Brunisol

Landform: till plain/drumlins

Cgj 60

Slope: simple, class 1, level

Comments: depth to watertable 55 cm.
faint mottling (10YR 5/6) in Cgj
A.P.I.O.S. precipitation collector site.

Sample No.	Horizon	Depth (cm)	Colour	Sand (%)	Silt (%)	Clay (%)	pH (H ₂ O)	pH (CaCl ₂)	Organic C (%)	Total Nitrogen (mg/g)	Extr. S (ug/g)	Extr. SO ₄ (ug/g)	Avail. P (ug/g)	Total P (ug/g)	Avail. Al (ug/g)
18001	Ah	0-15	10YR 3/2	54	24	22	6.8	6.4	3	3.0			3		0.400
18000	Ah	0-15	10YR 3/2	51	25	24	6.5	6.0	3	2.6			3		0.340
17999	Ah	15-30	10YR 3/2	54	23	23	6.8	6.3	2	1.7			3		0.160
17998	Ah	15-30	10YR 3/2	55	24	21	6.5	5.9	2	1.1			3		0.300
17997	Bm	30-40	10YR 5/4	53	24	23	7.0	6.4	1	0.6			3		0.080
17996	Bm	30-40	10YR 5/4	50	23	27	6.3	5.6	1	0.5			3		0.080
17995	Cgj	40-55	10YR 4/4	53	18	29	7.3	6.6	1	0.5			3		0.080
17994	Cgj	40-55	10YR 4/4	53	19	28	7.4	6.7	1	0.6			3		0.080

SOIL PROFILE INFORMATION (cont'd.)

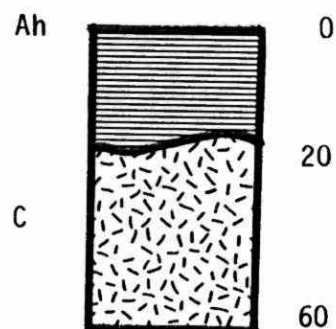
Site: Wellesley

Classification: Gleyed Melanic Brunisol

Sample No.	Horizon	Exchangeable Cations (ug/g)				C.E.C. (m.e.) 100g	Pyrophosphate (%)			Dithionite (%)			CaCO ₃ (%)	Metals (ug/g)			
		Ca	Mg	K	Al		Fe	Al	Mn	Fe	Al	Mn		Zn	Cu	Ni	Pb
18001	Ah	2370	390	100		15.17	0.230	0.130	0.0093	0.800	0.170	0.0140	2	51	9.3	8.4	12.0
18000	Ah	1820	360	110		12.28	0.290	0.170	0.0092	0.860	0.190	0.0150	2	62	9.7	9.3	12.0
17999	Ah	1600	290	74		10.53	0.310	0.170	0.0090	0.880	0.180	0.0170	3	55	9.2	10.0	7.9
17998	Ah	1220	240	58		8.21	0.380	0.200	0.0079	1.000	0.230	0.0160	3	64	10.0	11.0	7.4
17997	Bm	1010	230	47		6.98	0.200	0.094	0.0098	0.950	0.150	0.0300	2	57	12.0	17.0	8.8
17996	Bm	1010	250	48		7.14	0.180	0.066	0.0081	0.920	0.130	0.0270	2	49	11.0	14.0	3.7
17995	Cgj	1490	350	58		10.39	0.100	0.042	0.0059	0.960	0.150	0.0380	2	55	16.0	18.0	5.2
17994	Cgj	1390	250	52		9.10	0.120	0.055	0.0071	0.910	0.140	0.0350	3	47	12.0	16.0	5.2

SOIL PROFILE INFORMATION

Horizon Depth



Site: Luther Marsh Conservation Area

Date: 81/06/18

Location Code: 2001191

Parent Material: till plain near marsh

UTM: 17T 548200.0 4866950.0

Vegetation: pine

Classification: Orthic Humic Regosol

Landform: marsh/till plain

Comments: organic mottles throughout profiles, thick pine needles in litter layer

Slope: level

Sample No.	Horizon	Depth (cm)	Colour	Sand (%)	Silt (%)	Clay (%)	pH (H ₂ O)	pH (CaCl ₂)	Organic C (%)	Total Nitrogen (mg/g)	Extr. S (ug/g)	Extr. SO ₄ (ug/g)	Avail. P (ug/g)	Total P (ug/g)	Avail. Al (ug/g)
18182	Ah	0-20	10YR 3/2	21	48	31	7.5	6.9	3	3.0			3		0.22
18181	Ah	0-20	10YR 3/2	21	52	27	7.4	6.9	2	2.7			3		0.09
18180	C	20-50	10YR 5/6	28	49	23	7.7	7.0	1	0.5			3		0.11
18179	C	20-50	10YR 5/6	18	55	27	7.7	7.0	1	0.6			3		0.17
18178	C	50-60	10YR 5/6	48	33	19	7.8	7.1	1	0.4			3		0.08
18177	C	50-60	10YR 5/6	43	36	21	7.8	7.1	1	0.5			3		0.08

SOIL PROFILE INFORMATION (cont'd.)

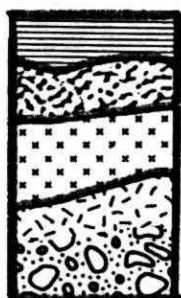
Site: Luther Marsh Conservation Area

Classification: Orthic Humic Regosol

Sample No.	Horizon	Exchangeable Cations (ug/g)				C.E.C. (m.e.) 100g	Pyrophosphate (%)			Dithionite (%)			CaCO ₃ (%)	Metals (ug/g)			
		Ca	Mg	K	Al		Fe	Al	Mn	Fe	Al	Mn		Zn	Cu	Ni	Pb
18182	Ah	2120	340	53		13.42	0.160	0.130	0.0180	0.720	0.120	0.0390	1	52	11.0	9.2	6.0
18181	Ah	2010	480	41		14.00	0.160	0.130	0.0170	0.850	0.150	0.0400	1	51	11.0	10.0	6.0
18180	C	910	300	39		7.07	0.069	0.031	0.0020	0.800	0.100	0.0200	1	25	8.8	6.1	3.0
18179	C	1020	310	45		7.67	0.071	0.036	0.0020	0.420	0.058	0.0120	1	32	9.6	7.8	3.9
18178	C	850	230	45		6.23	0.052	0.027	0.0012	0.420	0.044	0.0230	2	35	12.0	10.0	3.0
18177	C	690	230	45		5.44	0.051	0.024	0.0020	0.650	0.061	0.0300	2	31	12.0	6.5	3.0

SOIL PROFILE INFORMATION

Horizon	Depth	Site: Dufferin County, Guelph Series	Date: 81/06/18
Ah	0	Location Code: 2001208	Parent Material: lacustrine sand
Bm	20	UTM: 17T 568800.0 4859750.0	Vegetation: woodlot (managed), grasses
Bk	40	Classification: Brunisolic	
	60	Landform: sand plain	Comments: soil resurvey
C	80	Slope: extreme slopes	slightly stoney toward C



Sample No.	Horizon	Depth (cm)	Colour	Sand (%)	Silt (%)	Clay (%)	pH (H ₂ O)	pH (CaCl ₂)	Organic C (%)	Total Nitrogen (mg/g)	Extr. S (ug/g)	Extr. SO ₄ (ug/g)	Avail. P (ug/g)	Total P (ug/g)	Avail. Al (ug/g)
18166	Ah	0-15	10YR 3/3	81	6	13	7.9	7.3	1	0.8			3		0.08
18165	Ah	0-15	10YR 3/3	77	9	13	7.9	7.3	1	0.9			4		0.11
18164	B	15-30	10YR 5/4	86	4	9	7.8	7.1	1	0.3			3		0.08
18163	B	15-30	10YR 5/4	85	6	9	7.9	7.1	1	0.3			4		0.08
18162	Bm	30-45	10YR 5/6	84	8	8	8.3	7.5	1	0.3			4		0.08
18161	Bk	30-45	10YR 5/6	85	6	9	8.5	7.6	1	0.3			3		0.08
18160	C	45-65	7.5YR 4/4	88	5	7	8.3	7.4	1	0.2			4		0.08
18159	C	45-65	7.5YR 4/4	87	5	8	8.4	7.5	1	0.3			6		0.19

SOIL PROFILE INFORMATION (cont'd.)

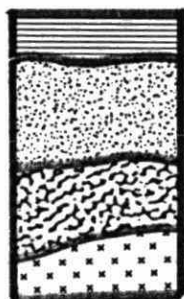
Site: Dufferin County, Guelph Series

Classification: Brunisolic

Sample No.	Horizon	Exchangeable Cations (ug/g)				C.E.C. (m.e.) 100g	Pyrophosphate (%)			Dithionite (%)			CaCO ₃ (%)	Metals (ug/g)			
		Ca	Mg	K	Al		Fe	Al	Mn	Fe	Al	Mn		Zn	Cu	Ni	Pb
18166	Ah	930	50	62		5.21							1				
18165	Ah	870	59	83		5.05							1				
18164	B	420	31	52		2.48							2				
18163	B	480	31	46		2.75							1				
18162	Bm	750	42	17		4.12							3				
18161	Bk	750	45	15		4.14	0.044	0.034	0.0041	0.540	0.067	0.0410	5				
18160	C	690	41	17		3.82	0.061	0.049	0.0043	0.510	0.079	0.0370	2				
18159	C	640	41	15		3.56							2				

SOIL PROFILE INFORMATION

Horizon	Depth	Site: Dufferin County, Brant Series	Date: 81/06/18
Ah	0	Location Code: 2001210	Parent Material: lacustrine sand/till
Bf	20	UTM: 17T 557900.0 4849350.0	Vegetation: grasses
	40	Classification: Sombric Humo-Ferric Podzol	
Bm	60	Landform: sand plain/till plain	Comments: soil resurvey
Ck	80	Slope: level	



Sample No.	Horizon	Depth (cm)	Colour	Sand (%)	Silt (%)	Clay (%)	pH (H ₂ O)	pH (CaCl ₂)	Organic C (%)	Total Nitrogen (mg/g)	Extr. S (ug/g)	Extr. SO ₄ (ug/g)	Avail. P (ug/g)	Total P (ug/g)	Avail. Al (ug/g)
18176	Ah	0-15	10YR 4/3	75	10	15	7.7	7.2	5	2.9			4		0.320
18175	Ah	0-15	10YR 4/3	73	10	17	7.6	7.1	5	2.4			6		0.280
18174	Bf	20-45	10YR 5/8	85	6	9	7.3	6.8	2	0.6			3		0.210
18173	Bf	20-45	10YR 5/8	77	10	13	7.5	7.0	2	0.5			3		0.160
18172	Bfj	45-70	7.5YR 5/6	81	9	10	7.6	6.9	2	0.5			3		0.260
18171	Bm	45-70	7.5YR 5/6	81	9	10	7.8	7.1	1	0.4			3		0.080
18170	Bm	70-80	10YR 4/4	46	39	15	8.0	7.3	1	0.5			3		0.100
18169	Ck	80-110	10YR 6/4	87	1	12	9.0	7.8	1	0.2			3		0.080
18168	Ck	80-110	10YR 6/4	85	2	13	8.9	7.8	1	0.2			3		0.080

SOIL PROFILE INFORMATION

Horizon Depth

Site: Kelso Conservation Area - Milton

Date: 80/05/06

Ah



0

Location Code: 3001004

Parent Material: till on Niagara Escarpment, colluvian

Bm

40

Classification: Orthic Melanic Brunisol

Vegetation: oak forest

Landform: till plain/limestone outcrop

Comments: earthworms in Ah, Wentworth till(?), Stones at 80 cm

C

80

Slope: moderate slope

Sample No.	Horizon	Depth (cm)	Colour	Sand (%)	Silt (%)	Clay (%)	pH (H ₂)	pH (CaCl ₂)	Organic C (%)	Total Nitrogen (mg/g)	Extr. S (ug/g)	Extr. SO ₄ (ug/g)	Avail. P (ug/g)	Total P (ug/g)	Avail. Al (ug/g)
9006	Ah	0-25		66.0	22.5	11.5	7.01	6.34	3.52	2.1		11.6		640	
9007	Bm	25-55		61.0	25.7	13.3	6.95	6.21	0.56	0.58		8.0		670	
9008	B	70+		56.4	20.9	22.7	7.77	6.32	0.39	0.63		9.0		820	
9012	Ah	0-25	2.5YR 3/2	70.4	15.5	14.1	7.12	6.50	3.00	1.98		10.7		690	
9011	Bm	25-55	7.5YR 4/4	67.2	23.5	9.2	6.88	5.86	0.31	0.43		10.4		680	
9010	Bm	55-80	7.5YR 4/4	67.4	24.9	7.7	7.02	6.05	0.16	0.33		7.9		780	
9009	C	80+	2.5YR 3/4	40.4	35.6	23.9	6.89	6.36	0.31	0.55		11.9		870	
9013	Ah	0-15		65.1	24.8	10.1	6.69	5.00	3.10	1.88		10.6		560	
9014	Bm	25-55		71.4	18.7	9.9	6.87	6.07	0.61	0.52		6.4		530	
9015	C	80+		52.8	22.0	25.2	7.20	6.74	0.93	0.72		6.6		580	

SOIL BASELINE ANALYTICAL DATA, 1980-1981

CENTRAL REGION

SOIL PROFILE INFORMATION

Horizon	Depth	Site: Kelso Conservation Area - Milton	Date: 80/05/06
Ah	0	Location Code: 3001004	Parent Material: till on Niagara Escarpment, colluvian
Bm	40	UTM: 17T 585400.0 4817300.0	
		Classification: Orthic Melanic Brunisol	Vegetation: oak forest
		Landform: till plain/limestone outcrop	Comments: earthworms in Ah, Wentworth till(?), Stones at 80 cm
C	80	Slope: moderate slope	



Sample No.	Horizon	Depth (cm)	Colour	Sand (%)	Silt (%)	Clay (%)	pH (H ₂ O)	pH (CaCl ₂)	Organic C (%)	Total Nitrogen (mg/g)	Extr. S (ug/g)	Extr. SO ₄ (ug/g)	Avail. P (ug/g)	Total P (ug/g)	Avail. Al (ug/g)
9006	Ah	0-25		66.0	22.5	11.5	7.01	6.34	3.52	2.1		11.6		640	
9007	Bm	25-55		61.0	25.7	13.3	6.95	6.21	0.56	0.58		8.0		670	
9008	B	70+		56.4	20.9	22.7	7.77	6.32	0.39	0.63		9.0		820	
9012	Ah	0-25	2.5YR 3/2	70.4	15.5	14.1	7.12	6.50	3.00	1.98		10.7		690	
9011	Bm	25-55	7.5YR 4/4	67.2	23.5	9.2	6.88	5.86	0.31	0.43		10.4		680	
9010	Bm	55-80	7.5YR 4/4	67.4	24.9	7.7	7.02	6.05	0.16	0.33		7.9		780	
9009	C	80+	2.5YR 3/4	40.4	35.6	23.9	6.89	6.36	0.31	0.55		11.9		870	
9013	Ah	0-15		65.1	24.8	10.1	6.69	5.00	3.10	1.88		10.6		560	
9014	Bm	25-55		71.4	18.7	9.9	6.87	6.07	0.61	0.52		6.4		530	
9015	C	80+		52.8	22.0	25.2	7.20	6.74	0.93	0.72		6.6		580	

SOIL PROFILE INFORMATION (cont'd.)

Site: Kelso Conservation Area - Milton

Classification: Orthic Melanic Brunisol

Sample No.	Horizon	Exchangeable Cations (ug/g)				C.E.C. (m.e.) 100g	Pyrophosphate (%)			Dithionite (%)			CaCO ₃ (%)	Metals (ug/g)			
		Ca	Mg	K	Al		Fe	Al	Mn	Fe	Al	Mn		Zn	Cu	Ni	Pb
9006	Ah	2021	209	95		12.0	0.14	0.06	.0440	0.94	0.13	0.100	2	106	31	12	34
9007	Bm	963	119	47		5.87	0.10	0.05	.0130	1.20	0.14	0.110	1	63	30	18	13
9008	B	1845	90	34		2.53	0.06	0.03	.0053	1.70	0.17	0.130	2	68	48	24	12
9012	Ah	1761	199	176.4		10.83	0.17	0.09	.0390				1	82	16	12	18.0
9011	Bm	450	70	30.0		2.88	0.13	0.11	.0068	0.92	0.18	0.058	2	50	13	12	4.8
9010	Bm	450	61	26.0		2.79	0.13	0.11	.0069	0.92	0.12	0.078	1	39	19	13	7.0
9009	C	1639	175	34.0		10.68	0.06	0.04	.0035	1.70	0.18	0.190	2	85	64	25	20.0
9013	Ah	1790	27	115		9.46	0.08	0.03	.0050	1.00	0.19	0.080		82	19	14	23
9014	Bm	621	70	43		3.76	0.09	0.05	.0110	0.81	0.11	0.062	1	47	19	18	10
9015	C	1450	134	52		8.49	0.10	0.04	.0130	1.30	0.14	0.110	2	68	39	33	16

SOIL PROFILE INFORMATION

Horizon Depth

Site: Watershed A - Dorset

Date: 80/05/20

Ah



0

Location Code: 3001006

Parent Material: sandy till

Bf

UTM: 17T 662250.0 5009750.0

Vegetation: sugar maple, birch, red oak

Bm

Classification: Sombric Humo-Ferric Podzol

Landform: shallow till and rock ridges

Comments: some stones at depth

C

60

Slope: moderate slope

Sample No.	Horizon	Depth (cm)	Colour	Sand (%)	Silt (%)	Clay (%)	pH (H ₂ O)	pH (CaCl ₂)	Organic C (%)	Total Nitrogen (mg/g)	Extr. S (ug/g)	Extr. SO ₄ (ug/g)	Avail. P (ug/g)	Total P (ug/g)	Avail. Al (ug/g)
9029	Ah	0-15	5YR 2.5/2	49.8	42.4	7.8	4.98	4.21	5.42	3.36		23.0		280	
9028	Bf	20-40	5YR 4/3	63.4	34.6	2.1	5.48	4.60	3.16	1.78		7.0		740	
9027	Bm	40-60	7.5YR 4/4	78.0	15.0	7.0	5.60	4.68	1.20	0.69		5.6		710	
9026	C	60+	2.5YR 4/4	67.0	26.0	7.0	6.05	4.87	0.50	0.35		7.1		830	
9030	Ah	0-10	5YR 2.5/2	58.6	32.6	8.7	4.55	3.84	9.27	4.94		22.4		370	
9031	Bf	20-30	5YR 4/3	60.7	36.1	3.2	5.45	4.49	3.56	1.82		6.5		360	
9032	C	50+	2.5YR 4/4	77.9	21.6	0.5	5.81	4.77	1.10	0.68		5.0		540	
9033	Ah	0-20	5YR 2.5/2	47.7	43.6	8.7	4.48	3.63	8.05	4.52		26.7		330	
9034	Bf	20-40	5YR 4/3	11.0	43.0	46.0	4.81	3.96	4.08	2.22		11.5		280	

SOIL PROFILE INFORMATION (cont'd.)

Site: Watershed A - Dorset

Classification: Sombric Humo-Ferric Podzol

Sample No.	Horizon	Exchangeable Cations (ug/g)				C.E.C. (m.e.) 100g	Pyrophosphate (%)			Dithionite (%)			CaCO ₃ (%)	Metals (ug/g)			
		Ca	Mg	K	Al		Fe	Al	Mn	Fe	Al	Mn		Zn	Cu	Ni	Pb
9029	Ah	1017	138	105	26	6.84	0.43	0.13	0.0092	1.10	0.18	0.015		70	9.7	2.4	34.0
9028	Bf	123	18	22	39	0.95	0.35	0.12	0.0032	1.10	1.20	0.002		62	8.6	4.9	1.7
9027	Bm	56	7	12	15	0.42	0.11	0.31	0.0004	0.39	0.42	0.001		33	7.4	6.1	1.4
9026	C	66	7	17	6	0.42	0.06	0.18	0.0010	0.38	0.27	0.004		49	16.0	10.0	1.5
9030	Ah	1162	148	168	54	7.67	0.51	0.17	0.0086	1.0	0.20	0.013		75	9.0	5.6	40.0
9031	Bf						0.78	0.68	0.0022	1.4	0.87	0.008		94	5.0	4.6	3.4
9032	C	113	9	7	12	0.77	0.15	0.23	0.0060	0.5	0.40	0.004		48	7.6	7.7	1.5
9033	Ah	773	101	126	92	5.90	0.41	0.69	0.0050	0.8	0.15	0.006		53	9.4	8.1	39.0
9034	Bf	397	50	68	140	4.20	1.10	0.32	0.0032	1.8	0.45	0.008		49	6.0	10.0	8.7

SOIL PROFILE INFORMATION

Horizon Depth

Site: Watershed A - Dorset

Date: 81/08/06

LFH 0

Location Code: 3001006

Parent Material: sand

Bf 20

UTM: 17T 662250.0 5009750.0

Vegetation: maple, oak, birch

Bm 40

Classification: Sombric Humo-Ferric Podzol

C 60

Landform: shallow till and rock ridges

Comments: faint, discontinuous Ae at 10-11 cm. moderately stoney throughout pit.

80

Slope: simple, class 5, moderate slope

Sample No.	Horizon	Depth (cm)	Colour	Sand (%)	Silt (%)	Clay (%)	pH (H ₂ O)	pH (CaCl ₂)	Organic C (%)	Total Nitrogen (mg/g)	Extr. S (ug/g)	Extr. SO ₄ (ug/g)	Avail. P (ug/g)	Total P (ug/g)	Avail. Al (ug/g)
17540	LFH	0-10	10YR 3/1				5.5	4.4							2.7
17539	LFH	0-10	10YR 3/1				5.4	4.4							1.6
17538	Bf	10-30	7.5YR 4/4				5.3	4.4							6.3
17537	Bf	10-30	7.5YR 4/4				5.3	4.4							7.3
17536	Bm	30-40	10YR 5/4				5.2	4.5							4.4
17535	Bm	30-40	10YR 5/4				5.3	4.5							3.6
17534	C	40-60	10YR 6/4	82	16	2	5.2	4.5	1	0.5			3		3.6
17533	C	40-60	10YR 6/4	82	16	2	5.2	4.3	1	0.5			3		3.1
17532	C	60-70	10YR 6/4	82	16	2	5.1	4.5	1	0.6			3		3.7
17531	C	60-70	10YR 6/4	84	14	2	5.2	4.4	1	0.4			3		2.6

SOIL PROFILE INFORMATION (cont'd.)

Site: Watershed A - Dorset

Classification: Sombric Humo-Ferric Podzol

Sample No.	Horizon	Exchangeable Cations (ug/g)				C.E.C. (m.e.) 100g	Pyrophosphate (%)			Dithionite (%)			CaCO ₃ (%)	Metals (ug/g)			
		Ca	Mg	K	Al		Fe	Al	Mn	Fe	Al	Mn		Zn	Cu	Ni	Pb
17540	LFH	1390	140	120	18	8.55											
17539	LFH	1750	190	110	9	6.50											
17538	Bf	200	15	19	82	1.97											
17537	Bf	150	11	11	77	1.29											
17536	Bm	32	2	11	48	0.68											
17535	Bm	32	2	11	37	0.52											
17534	C	27	2	16	35	0.55											
17533	C	27	2	11	35	0.49											
17532	C	27	2	14	48	0.66											
17531	C	48	2	14	34	0.54											

SOIL PROFILE INFORMATION

Horizon	Depth	Site: Mark Burnham Provincial Park	Date: 80/05/22
Ah	0	Location Code: 3001007	Parent Material: till
Bm/Bf	30	UTM: 17T 717950.0 4908500.8	Vegetation: maple, oak
Ck	60	Classification: Orthic Melanic Brunisol	Comments: rocky throughout profile
		Landform: drumlin/till plain	
		Slope: nearly level	



Sample No.	Horizon	Depth (cm)	Colour	Sand (%)	Silt (%)	Clay (%)	pH (H ₂ O)	pH (CaCl ₂)	Organic C (%)	Total Nitrogen (mg/g)	Extr. S (ug/g)	Extr. SO ₄ (ug/g)	Avail. P (ug/g)	Total P (ug/g)	Avail. Al (ug/g)
9037	Ah	0-20	7.5YR 2.5/0	49.0	32.0	19.0	7.77	7.28	5.52	3.71		17.2		910	
9036	Bfj	30-40	7.5YR 3/2	34.5	33.8	31.7	7.90	7.37	1.05	0.90		9.7		1400	
9035	Ck	50+	7.5YR 8/2	54.3	24.5	21.5	8.42	7.70	0.43	0.28		7.5		730	
9038	Ah	0-20		37.0	42.0	20.0	6.95	6.44	6.07	3.74		19.3		940	
9039	Bm	30-40		37.1	42.8	20.1	7.43	6.84	1.38	1.11		10.7		890	
9041	Ck	50+		56.7	31.4	11.9	8.58	7.79	0.37	0.37		7.0		770	
9043	Ah	0-20		45.0	31.0	24.0	7.27	6.97	5.16	3.58		30.3		960	
9042	Bmk	30-40		34.4	30.5	35.1	7.65	7.25	0.94	0.83		9.6		1250	

SOIL PROFILE INFORMATION (cont'd.)

Site: Mark Burnham Provincial Park

Classification: Orthic Melanic Brunisol

Sample No.	Horizon	Exchangeable Cations (ug/g)				C.E.C. (m.e.) 100g	Pyrophosphate (%)			Dithionite (%)			CaCO ₃ (%)	Metals (ug/g)			
		Ca	Mg	K	Al		Fe	Al	Mn	Fe	Al	Mn		Zn	Cu	Ni	Pb
9037	Ah	3294	74	51		17.71	0.43	0.18	0.0230	1.2	0.21	0.054	1-2	77.0	15.0	7.7	15.0
9036	Bfj	2443	47	34		12.65	0.64	0.40	0.0028	1.2	0.16	0.057	1-2	60.0	27.0	19.0	6.5
9035	Ck	1059	12	26		5.45	0.02	0.01	0.0020	1.2	0.06	0.023	43	20.0	13.0	7.3	2.5
9038	Ah	3097	74	69		16.26	0.40	0.18	0.0330	1.2	0.230	0.061	1-2	81.0	15.0	10.0	16.0
9039	Bm	1450	33	30		7.63	0.18	0.09	0.0089	0.98	0.150	0.040	1-2	49.0	17.0	14.0	5.1
9041	Ck	1059	12	21		5.44	0.01	0.01	0.0013	0.41	0.040	0.016	47	20.0	17.0	5.6	2.7
9043	Ah	3689	60	43		18.98	0.33	0.13	0.0220	1.2	0.20	0.062	1-2	75.0	17.0	7.7	18.0
9042	Bmk	2744	51	39		14.2	0.10	0.04	0.0061	1.0	0.15	0.057	42	59.0	23.0	19.0	6.8

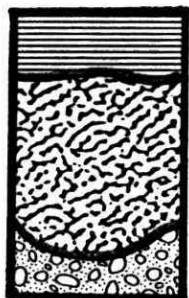
SOIL PROFILE INFORMATION

Horizon Depth

Site: Warsaw Caves Conservation Area

Date: 80/05/27

Ah



0

Location Code: 3001008

Parent Material: sandy till

Bm

40

UTM: 17T 249550.0 4926700.0

Vegetation: spruce, grass, moss

Classification: Orthic Melanic Brunisol

Landform: moraine/spillway

Comments: area of karst topography limestone caves, kettles, stones in pit

Ck

80

Slope: nearly level

Sample No.	Horizon	Depth (cm)	Colour	Sand (%)	Silt (%)	Clay (%)	pH (H ₂ O)	pH (CaCl ₂)	Organic C (%)	Total Nitrogen (mg/g)	Extr. S (ug/g)	Extr. SO ₄ (ug/g)	Avail. P (ug/g)	Total P (ug/g)	Avail. Al (ug/g)
9045	Ah	0-15	5YR 2.5/1	71	14	15	7.15	6.63	7.32	0.34		7.7		570	
9046	Bm	15-45	5YR 4/4	73	16	11	6.82	5.93	0.82	0.33		7.6		370	
9044	Bm	45-75	5YR 4/4	58	33	9	6.58	5.83	0.70	4.00		17.1		510	
9040	Ck	75	7.5YR 5/2	71	13	16	8.65	7.73	0.25	0.39		6.9		510	
9049	Ah	0-20	5YR 2.5/1	67	11	21	7.36	6.83	8.25	3.61		16.6		360	
9048	Bm	50	5YR 4/4	70	10	20	7.31	6.79	1.02	0.60		10.2		480	
9047	Ck	75	7.5YR 5/2	70	15	15	8.73	7.77	0.11	0.11		8.0		710	
9052	Ah	0-20	5YR 2.5/1	66	13	21	7.65	7.17	5.11	3.26		18.8		560	
9051	Bm	20-70	5YR 4/4	67	9	25	7.81	6.73	0.59	0.42		11.8		460	
9050	Ck	75	7.5YR 5/2	76	15	9	8.50	7.77	0.31	0.22		8.0		830	

SOIL PROFILE INFORMATION (cont'd.)

Site: Warsaw Caves Conservation Area

Classification: Orthic Melanic Brunisol

Sample No.	Horizon	Exchangeable Cations (ug/g)				C.E.C. (m.e.) 100g	Pyrophosphate (%)			Dithionite (%)			CaCO ₃ (%)	Metals (ug/g)			
		Ca	Mg	K	Al		Fe	Al	Mn	Fe	Al	Mn		Zn	Cu	Ni	Pb
9045	Ah	1668	23	25.0		8.58	0.17	0.09	0.0700	0.78	0.15	0.099	1-2	109	20	6.0	17.0
9046	Bm	892	12	8.4		4.57	0.13	0.09	0.0061	0.84	0.14	0.014	1-2	40	12	5.7	4.5
9044	Bm	2242	105	52.0		12.15	0.15	0.06	0.0095	1.0	0.17	0.056	1-2	40	13	12.0	7.7
9040	Ck	777	2	8.4		3.91	0.19	0.09	0.0090	0.29	0.03	0.016	48	13	15	4.2	2.6
9049	Ah	3097	112	30.0		16.51	0.08	0.06	0.0350	0.6	0.12	0.040	1-2	87	19	5.4	35.0
9048	Bm	1254	25	26.0		6.56	0.15	0.11	0.0150	1.1	0.23	0.072	1-2	37	17	9.6	8.6
9047	Ck	654	2	8.4		3.30	0.10	0.01	0.0021	0.22	0.03	0.009	18	12	12	3.2	1.4
9052	Ah	3294	79	104.0		17.38	0.11	0.03	0.1000	0.57	0.110	0.098	1-2	70	23	6.6	19.0
9051	Bm	1157	23	39.0		16.77	0.10	0.06	0.0180	0.75	0.110	0.048	1-2	32	16	11.0	7.6
9050	Ck	939	5	8.4		4.75	0.02	0.02	0.0029	0.22	0.041	0.010	18	12	12	5.4	1.3

SOIL PROFILE INFORMATION

Horizon	Depth	Site: Warsaw-Esker (Peterborough)	Date: 80/05/22
Ah	0	Location Code: 3001009	Parent Material: till
Ck	500	UTM: 17T 248700.0 4925250.0	Vegetation: grass
	1000	Classification: Unclassified	
		Landform: esker	Comments: unstratified rocks, esker used for gravel
Ck		Slope: strong slope	



Sample No.	Horizon	Depth (cm)	Colour	Sand (%)	Silt (%)	Clay (%)	pH (H ₂ O)	pH (CaCl ₂)	Organic C (%)	Total Nitrogen (mg/g)	Extr. S (ug/g)	Extr. SO ₄ (ug/g)	Avail. P (ug/g)	Total P (ug/g)	Avail. Al (ug/g)
9053	Ah	0-20	10YR 3/3	58	17	26	8.02	7.52	2.07	1.78		10.80		1070	
9054	Ck	130	10YR 4/3	69	8	22	8.25	7.78	0.68	0.53		6.42		820	
9055	Ck	400	10YR 5/3	67	17	16	8.41	7.79	0.81	0.57		7.50		770	
9056	Ck	600	10YR 4/3	67	9	25	8.14	7.67	1.16	0.94		9.10		1090	
9057	Ck	1000	10YR 4/3	69	11	20	8.39	7.77	0.93	0.68		7.60		750	

SOIL PROFILE INFORMATION (cont'd.)

Site: Warsaw-Esker-(Peterborough)

Classification: Unclassified

Sample No.	Horizon	Exchangeable Cations (ug/g)				C.E.C. (m.e.) 100g	Pyrophosphate (%)			Dithionite (%)			CaCO ₃ (%)	Metals (ug/g)			
		Ca	Mg	K	Al		Fe	Al	Mn	Fe	Al	Mn		Zn	Cu	Ni	Pb
9053	Ah	2342	49	43		12.19	0.08	0.07	0.0280	1.2	0.16	0.120	4	68	20	18	12.0
9054	Ck	1450	18	17		7.48	0.03	0.04	0.0052	0.76	0.08	0.044	20	44	27	14	7.6
9055	Ck	1450	14	30		7.48	0.02	0.03	0.0047	0.79	0.10	0.062	22	61	29	13	7.1
9056	Ck	1548	28	43		8.02	0.03	0.04	0.0076	0.73	0.09	0.066	18	65	28	14	10.0
9057	Ck	1497	28	37		7.79	0.03	0.04	0.0080	0.68	0.08	0.067	20	61	32	14	5.1

SOIL PROFILE INFORMATION

Horizon Depth

Site: Bronte Creek Provincial Park

Date: 80/06/11

Ah 0

Location Code: 3001020

Parent Material: Wentworth till

Aej 25

UTM: 17T 600200.0 4806400.0

Vegetation: oak, hawthorn

Bt 35

Classification: Orthic Gray Brown Luvisol

Landform: shale plain/beach

Comments: suggestion of Ae horizon, slightly mottled, glacial Lake Iroquois shoreline.

C 50

Slope: nearly level

Sample No.	Horizon	Depth (cm)	Colour	Sand (%)	Silt (%)	Clay (%)	pH (H ₂ O)	pH (CaCl ₂)	Organic C (%)	Total Nitrogen (mg/g)	Extr. S (ug/g)	Extr. SO ₄ (ug/g)	Avail. P (ug/g)	Total P (ug/g)	Avail. Al (ug/g)
9154	Ah	0-20	5YR 3/2	16	53	32	6.17	5.59	4.22	3.35		14.9		0.78	
9155	Ah	0-20	5YR 3/2	15	52	33	6.41	5.72	1.26	3.14		14.6		0.73	
9152	Aej	25	7.5YR 4/4	18	57	25	5.66	4.79	0.45	0.54		8.7		0.25	
9153	Aej	25	7.5YR 4/4	16	59	25	5.67	4.73	0.33	0.45		9.8		0.21	
9150	Bt	35	5YR 4/4	9	45	46	5.44	4.64	0.35	0.72		20.4		0.36	
9151	Bt	35	5YR 4/4	8	43	50	5.35	4.66	0.29	0.48		23.4		0.29	
9148	C	45-55	2.5YR 3/4	8	53	39	6.62	5.91	0.35	0.49		14.5		0.81	
9149	C	45-55	2.5YR 3/4	6	44	51	6.13	5.27	0.35	0.64		22.6		0.60	

SOIL PROFILE INFORMATION (cont'd.)

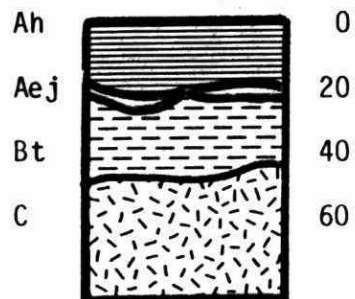
Site: Bronte Creek Provincial Park

Classification: Orthic Gray Brown Luvisol

Sample No.	Horizon	Exchangeable Cations (ug/g)				C.E.C. (m.e.) 100g	Pyrophosphate (%)			Dithionite (%)			CaCO ₃ (%)	Metals (ug/g)			
		Ca	Mg	K	Al		Fe	Al	Mn	Fe	Al	Mn		Zn	Cu	Ni	Pb
9154	Ah	3609	282	291		21.02	0.23	0.10	0.0360	1.4	0.23	0.130	2	128	31	20	42
9155	Ah	3934	332	346		23.17	0.21	0.10	0.0360	1.5	0.26	0.160	2	116	24	19	68
9152	Aej	897	73	54	27	5.48	0.17	0.06	0.0015	1.6	0.16	0.024		65	29	20	11
9153	Aej	897	63	44	41	5.51	0.17	0.06	0.0016	1.5	0.16	0.021		66	35	19	10
9150	Bt	1939	131	53	167	12.55	0.06	0.03	0.0011	1.8	0.17	0.048		78	39	29	11
9151	Bt	2237	141	53	193	14.39	0.12	0.06	0.0011	1.9	0.17	0.034		79	36	29	11
9148	C	2961	161	37		16.25	0.04	0.02	0.0020	1.7	0.16	0.130	1	81	29	38	14
9149	C	3553	182	42	2	19.34	0.07	0.03	0.0038	1.8	0.14	0.120	2	80	31	35	12

SOIL PROFILE INFORMATION

Horizon Depth



Site: Bronte Creek Provincial Park

Date: 81/05/20

Location Code: 3001020

Parent Material: Wentworth till

UTM: 17T 600200.0 4806400.0

Vegetation: oak, hawthorn

Classification: Orthic Gray Brown Luvisol

Landform: till plain

Comments:

Slope: level

Sample No.	Horizon	Depth (cm)	Colour	Sand (%)	Silt (%)	Clay (%)	pH (H ₂ O)	pH (CaCl ₂)	Organic C (%)	Total Nitrogen (mg/g)	Extr. S (ug/g)	Extr. SO ₄ (ug/g)	Avail. P (ug/g)	Total P (ug/g)	Avail. Al (ug/g)
17181	Ah	0-20	10YR 3/2	16	43	41	6.2	5.3	4	3.0			5		0.220
17180	Ah	0-20	10YR 3/2	19	38	43	6.1	5.4	4	3.4			4		0.380
17179	Bt	20-40	10YR 4/4	36	26	38	5.4	4.6	1	0.6			3		0.580
17178	Bt	20-40	10YR 4/4	20	53	27	5.6	4.5	1	0.5			3		0.240
17177	C	40-55	2.5YR 5/4	14	44	42	5.7	5.0	1	0.6			3		0.080
17176	C	40-55	2.5YR 5/4	13	30	57	5.7	4.9	1	0.7			3		0.120

SOIL PROFILE INFORMATION (cont'd.)

Site: Bronte Creek Provincial Park

Classification: Orthic Gray Brown Luvisol

Sample No.	Horizon	Exchangeable Cations (ug/g)				C.E.C. (m.e.) 100g	Pyrophosphate (%)			Dithionite (%)			CaCO ₃ (%)	Metals (ug/g)			
		Ca	Mg	K	Al		Fe	Al	Mn	Fe	Al	Mn		Zn	Cu	Ni	Pb
17181	Ah	1840	280	260	0	12.04							1				
17180	Ah	1740	270	250	1	11.50							1				
17179	Bt	770	66	49	30	4.78											
17178	Bt	1180	88	40	28	6.97											
17177	C	1840	160	53	6	10.68							1				
17176	C	2090	150	46	15	11.92											

SOIL PROFILE INFORMATION

Horizon	Depth	Site: Goodrich-Loomis Conservation Area	Date: 80/06/16
Ah	0	Location Code: 3001025	Parent Material: sand
Aej	12	UTM: 18T 274500.0 4889400.0	Vegetation: till/lacustrine deposit
Bt	15	Classification: Orthic Gray Brown Luvisol	
	40	Landform: drumlin/beach deposit	Comments: clay accumulation could be lacustrine deposit
Ck	60	Slope: moderate slope	



Sample No.	Horizon	Depth (cm)	Colour	Sand (%)	Silt (%)	Clay (%)	pH (H ₂ O)	pH (CaCl ₂)	Organic C (%)	Total Nitrogen (mg/g)	Extr. S (ug/g)	Extr. SO ₄ (ug/g)	Avail. P (ug/g)	Total P (ug/g)	Avail. Al (ug/g)
9191	Ah	0-12	10YR 3/3	68	20	11	8.16	7.69	0.45	0.21		3.1		500	
9192	Ah	0-12	10YR 3/3	75	17	9	8.13	7.58	0.58	0.12		4.1		20	
9190	Aej	12-15	10YR 6/3	76	17	7	8.15	7.49	0.12	0.40		2.1		910	
9188	Bt	15-35	7.5YR 4/4	60	15	24	8.30	7.68	0.21	0.31		2.6		1100	
9189	Bt	15-35	7.5YR 4/4	65	12	23	8.11	7.68	0.25	0.24		2.9		560	
9186	Ck	35-40	5Y 5/4	76	16	9	8.71	7.83	0.12	0.20		1.4		680	
9187	Ck	35-40	5Y 5/4	68	18	14	8.76	7.85	0.12	0.15		1.1		520	
9184	Ck	60	5Y 6/4	82	16	3	8.72	7.88	0.08	1.94		1.4		570	
9185	Ck	60	5Y 6/4	79	20	1	8.71	7.84	0.11	0.28		1.3		630	

SOIL PROFILE INFORMATION (cont'd.)

Site: Goodrich-Loomis Conservation Area

Classification: Orthic Gray Brown Luvisol

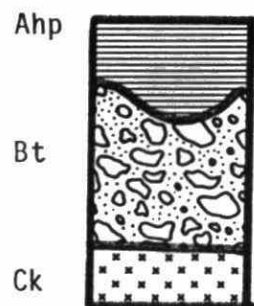
Sample No.	Horizon	Exchangeable Cations (ug/g)				C.E.C. (m.e.) 100g	Pyrophosphate (%)			Dithionite (%)			CaCO ₃ (%)	Metals (ug/g)			
		Ca	Mg	K	Al		Fe	Al	Mn	Fe	Al	Mn		Zn	Cu	Ni	Pb
9191	Ah	1021	8.5	21.0		5.21	0.02	0.02	0.0021	0.45	0.06	0.016	2	22.0	10.0	4.4	3.0
9192	Ah	956	8.5	21.0		4.89	0.02	0.02	0.0025	0.41	0.06	0.015	4	22.0	11.0	3.9	3.1
9190	Aej	550	4.2	13.0		2.80	0.03	0.02	0.0016	0.34	0.04	0.012		13.0	12.0	3.4	1.2
9188	Bt	1484	8.5	17.0		7.51	0.02	0.02	0.0020	0.77	0.09	0.022	4	23.0	12.0	8.9	1.8
9189	Bt	1506	8.5	17.0		7.63	0.03	0.02	0.0021	1.00	0.13	0.022	2	31.0	23.0	11.0	1.9
9186	Ck	489	4.2	8.3		2.49	0.01	0.01	0.0009	0.20	0.02	0.009	35	8.9	13.0	3.4	4.4
9187	Ck	489	4.2	8.3		2.49	0.01	0.01	0.0013	0.21	0.02	0.010	33	7.5	9.5	2.4	1.4
9184	Ck	457	4.2	8.3		2.33	0.01	0.00	0.0004	0.19	0.02	0.008	38	9.0	20.0	2.3	1.2
9185	Ck	467	4.2	8.3		2.38	0.01	0.01	0.0006	0.19	0.02	0.009	32	7.9	14.0	2.5	4.2

SOIL PROFILE INFORMATION

Horizon Depth

Site: Ferris Provincial Park

Date: 80/06/16



Ahp 0

Bt 30

Ck 60

Location Code: 3001026

Parent Material: till

UTM: 18T 277300.0 4908500.0

Vegetation: maple, oak, grass

Classification: Orthic Gray Brown Luvisol

Landform: drumlin

Comments: many stones

Slope: nearly level

Sample No.	Horizon	Depth (cm)	Colour	Sand (%)	Silt (%)	Clay (%)	pH (H ₂ O)	pH (CaCl ₂)	Organic C (%)	Total Nitrogen (mg/g)	Extr. S (ug/g)	Extr. SO ₄ (ug/g)	Avail. P (ug/g)	Total P (ug/g)	Avail. Al (ug/g)
9201	Ahp	0-5	5YR 2.5/1	25	43	32	7.19	6.64	4.89	3.61		14.7		1130	
9202	Ahp	0-5	5YR 2.5/1	29	42	29	6.24	5.75	5.32	3.62		19.0		1070	
9199	Ahp	15	5YR 2.5/2	34	44	22	7.64	7.13	3.10	2.56		8.3		920	
9200	Ahp	15	5YR 2.5/2	32	43	25	7.41	6.71	2.41	2.16		8.4		1110	
9197	Bt	30	5YR 3/4	26	41	33	7.75	7.21	1.09	0.91		6.1		1000	
9198	Bm	30	5YR 3/4	45	46	9	7.56	6.95	0.88	0.74		5.2		890	
9195	Bt	40	5YR 3/4	19	43	38	7.94	7.44	0.66	0.58		6.3		860	
9196	Bt	40	5YR 3/4	23	45	32	7.86	7.23	0.84	0.87		6.2		1080	
9193	Ck	55	7.5YR 6/2	56	26	18	8.38	7.76	0.19	0.48		3.4		580	
9194	Ck	55	7.5YR 6/2	52	29	19	8.42	7.81	0.23	0.20		3.1		550	

SOIL PROFILE INFORMATION (cont'd.)

Site: Ferris Provincial Park

Classification: Orthic Gray Brown Luvisol

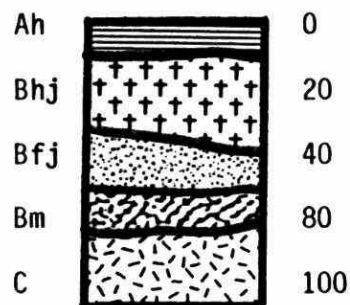
Sample No.	Horizon	Exchangeable Cations (ug/g)				C.E.C. (m.e.) 100g	Pyrophosphate (%)			Dithionite (%)			CaCO ₃ (%)	Metals (ug/g)			
		Ca	Mg	K	Al		Fe	Al	Mn	Fe	Al	Mn		Zn	Cu	Ni	Pb
9201	Ahp	4221	132	191		22.62	0.12	0.07	0.0920	1.00	0.14	0.098		87	28	14.0	14.0
9202	Ahp	3424	141	191		18.71	0.14	0.09	0.0990	1.00	0.16	0.086	1	85	28	14.0	15.0
9199	Ahp	3470	78	76		18.21	0.10	0.06	0.0440	0.95	0.12	0.089	4	83	34	14.0	8.9
9200	Ahp	3195	65	68		16.64	0.11	0.06	0.0300	0.90	0.11	0.073		72	24	13.0	6.8
9197	Bt	317	79	69		16.60	0.08	0.06	0.0091	1.40	0.16	0.080	2	86	31	23.0	5.6
9198	Bm	232	61	51		12.21	0.08	0.05	0.0084	1.10	0.14	0.084	2	74	31	16.0	5.4
9195	Bt	339	70	64		17.62	0.05	0.03	0.0045	1.30	0.14	0.056	2	73	30	20.0	4.1
9196	Bt	317	70	69		16.61	0.07	0.04	0.0042	1.30	0.15	0.067	2	76	32	19.0	4.8
9193	Ck	1124	17	42		5.84	0.01	0.01	0.0010	0.49	0.04	0.017	40	23	22	7.3	1.4
9194	Ck	1124	17	42		5.84	0.01	0.01	0.0013	0.49	0.04	0.018	42	23	28	7.2	1.4

SOIL PROFILE INFORMATION

Horizon Depth

Site: Bass Lake Provincial Park

Date: 80/06/23



Location Code: 3001032

Parent Material: sand

UTM: 17T 620450.0 4939550.0

Vegetation: maple, pine, grassland

Classification: Orthic Melanic Brunisol

Landform: sand plain/beach

Comments:

Slope: moderate slopes

Sample No.	Horizon	Depth (cm)	Colour	Sand (%)	Silt (%)	Clay (%)	pH (H ₂ O)	pH (CaCl ₂)	Organic C (%)	Total Nitrogen (mg/g)	Extr. S (ug/g)	Extr. SO ₄ (ug/g)	Avail. P (ug/g)	Total P (ug/g)	Avail. Al (ug/g)
9254	Ah	0-10	10YR 3/2	54	27	19	6.38	5.78	3.38	7.1		16.9		580	
9255	Ah	0-10	10YR 3/2	58	25	17	6.46	5.67	3.27	7.5		19.9		640	
9252	Bhj	20	10YR 4/3	62	27	11	6.54	5.49	1.38	0.98		12.8		540	
9253	Bhj	20	10YR 4/3	63	26	11	6.08	5.16	1.76	1.33		14.0		680	
9250	Bhj	40	10YR 4/3	63	28	9	6.57	5.46	1.14	0.74		17.0		590	
9251	Bhj	40	10YR 4/3	63	28	9	6.49	5.36	1.30	0.73		14.3		580	
9248	Bfj	50	7.5YR 5/6	60	28	12	6.64	5.65	0.82	0.54		14.7		490	
9249	Bfj	50	7.5YR 5/6	69	28	3	6.57	5.50	0.94	0.74		15.0		910	
9246	Bm	70	7.5YR 5/6	69	24	7	6.54	5.72	0.80	0.54		14.0		590	
9247	Bm	70	7.5YR 5/6	65	26	8	6.48	5.54	0.98	0.48		12.6		740	
9244	C	90	10YR 4/3	70	21	9	6.39	5.03	0.35	0.13		10.0		460	
9245	C	90	10YR 4/3	70	21	9	6.67	5.59	0.32	0.21		11.8		500	230

SOIL PROFILE INFORMATION (cont'd.)

Site: Bass Lake Provincial Park

Classification: Orthic Melanic Brunisol

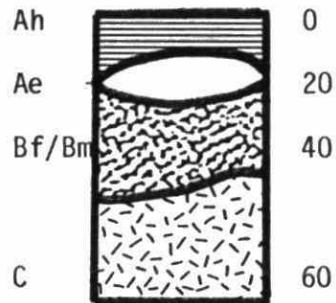
Sample No.	Horizon	Exchangeable Cations (ug/g)				C.E.C. (m.e.) 100g	Pyrophosphate (%)			Dithionite (%)			CaCO ₃ (%)	Metals (ug/g)			
		Ca	Mg	K	Al		Fe	Al	Mn	Fe	Al	Mn		Zn	Cu	Ni	Pb
9254	Ah	1411	150	120		8.48	0.17	0.10	0.0490	0.92	0.22	0.065	1	57.0	27.0	7.1	9.9
9255	Ah	1324	118	111		7.39	0.19	0.15	0.0540	0.85	0.21	0.058	1	56.0	22.0	7.5	12.0
9252	Bhj	130	22	22	5.60	0.94	0.15	0.14	0.0160	0.81	0.24	0.067	1	56.0	25.0	7.8	3.7
9253	Bhj	713	66	37	1.65	4.21	0.13	0.12	0.0200	0.98	0.20	0.055	2	52.0	29.0	6.4	4.3
9250	Bhj	666	36	12	0.90	3.66	0.25	0.18	0.0100	1.0	0.16	0.075	1	55.0	20.0	7.1	2.6
9251	Bhj	737	61	22	1.15	4.30	0.19	0.15	0.0089	1.2	0.14	0.060	1	53.0	8.5	7.4	2.1
9248	Bfj	662	24	21		3.53	0.27	0.23	0.0063	1.1	0.23	0.058	1	58.0	34.0	9.9	2.6
9249	Bfj	662	15	17		3.45	0.27	0.27	0.0056	1.2	0.20	0.049		60.0	18.0	11.0	2.2
9246	Bm	489	13	17		2.58	0.21	0.26	0.0058	0.98	0.22	0.066		47.0	41.0	8.7	1.2
9247	Bm	403	8	17		2.11	0.12	0.21	0.0057	1.00	0.19	0.041		52.0	41.0	12.0	3.1
9244	C	205	12	7	0.85	1.14	0.04	0.06	0.0025	0.43	0.06	0.033	1	16.0	17.0	5.5	1.2
9245	C	232	42	10		1.21	0.04	0.05	0.0025	0.75	0.11	0.083	1	26.0	17.0	8.7	1.3

SOIL PROFILE INFORMATION

Horizon Depth

Site: Moonstone

Date: 80/06/23



Location Code: 3001033

Parent Material: lacustrine sand

UTM: 17T 603650.0 4943750.0

Vegetation: maple, birch, oak

Classification: Eluviated Melanic Brunisol

Landform: sand plain

Comments: irregular, discontinuous Ae
almost a podzol, near APIOS
precipitation collector

Slope: nearly level

Sample No.	Horizon	Depth (cm)	Colour	Sand (%)	Silt (%)	Clay (%)	pH (H ₂ O)	pH (CaCl ₂)	Organic C (%)	Total Nitrogen (mg/g)	Extr. S (ug/g)	Extr. SO ₄ (ug/g)	Avail. P (ug/g)	Total P (ug/g)	Avail. Al (ug/g)
9263	Ah	10	5YR 3/1	60	22	18	7.68	7.12	3.42	0.94		8.3		600	
9264	Ah	10	5YR 3/1	61	24	15	7.61	7.13	3.52	1.42		8.4		820	
9261	Ah	20	5YR 3/1	61	21	18	7.47	7.13	2.19	1.08		7.8		840	
9262	Ah	20	5YR 3/1	58	22	19	7.48	6.74	3.05	1.23		6.8		700	
9260	Ae	22	10YR 5/3	64	22	14	7.18	6.55	1.37	0.55		6.4		660	
9258	Bm	35	10YR 4/4	61	26	13	7.13	6.42	0.78	0.51		6.6		900	
9259	Bf	35	10YR 4/4	64	26	10	7.12	6.35	0.74	0.51		8.7		730	
9256	C	50	10YR 4/4	79	9	12	7.11	6.30	0.39	0.21		5.5		450	
9257	C	50	10YR 4/3	83	9	8	7.10	6.36	0.23	0.13		5.4		430	

SOIL PROFILE INFORMATION (cont'd.)

Site: Moonstone

Classification: Eluviated Melanic Brunisol

Sample No.	Horizon	Exchangeable Cations (ug/g)				C.E.C. (m.e.) 100g	Pyrophosphate (%)			Dithionite (%)			CaCO ₃ (%)	Metals (ug/g)			
		Ca	Mg	K	Al		Fe	Al	Mn	Fe	Al	Mn		Zn	Cu	Ni	Pb
9263	Ah	2276	183	121		13.15	0.16	0.08	0.0490	0.75	0.15	0.0960	1	67	21	9.3	22.0
9264	Ah	2097	165	113		12.09	0.19	0.10	0.0650	0.73	0.15	0.0970	1	68	39	9.5	20.0
9261	Ah	1744	151	63		10.09	0.30	0.14	0.0480	0.78	0.17	0.1200	1	62	15	8.5	9.9
9262	Ah	1964	156	71		11.25	0.20	0.12	0.0670	0.85	0.19	0.1800	1	68	20	9.5	10.4
9260	Ae	934	68	47		5.33	0.19	0.13	0.0170	0.77	0.19	0.0710	1	45	23	9.4	3.0
9258	Bm	815	52	17		4.52	0.17	0.14	0.0054	0.85	0.27	0.0310	1	50	32	9.3	2.8
9259	Bf	807	51	28		4.52	0.31	0.21	0.0076	0.97	0.26	0.0370	1	53	20	10.0	4.0
9256	C	771	52	42		4.38	0.06	0.06	0.0030	0.66	0.09	0.0290	1	36	27	10.0	1.5
9257	C	424	17	34		2.33	0.04	0.05	0.0017	0.48	0.12	0.0038	2	18	20	6.4	1.1

SOIL PROFILE INFORMATION

Horizon Depth

Site: Springwater Provincial Park

Date: 80/06/23

Ah 0

Location Code: 3001034

Parent Material: deltaic sand

Bfj 20

UTM: 17T 598450.0 4921500.0

Vegetation: pine

Bhj 40

Classification: Orthic Sombric Brunisol

Bm 60

Landform: sand plain

Comments: iron stains (2.5YR 3/6) in C
almost a podzol

C 80

Slope: level

Sample No.	Horizon	Depth (cm)	Colour	Sand (%)	Silt (%)	Clay (%)	pH (H ₂ O)	pH (CaCl ₂)	Organic C (%)	Total Nitrogen (mg/g)	Extr. S (ug/g)	Extr. SO ₄ (ug/g)	Avail. P (ug/g)	Total P (ug/g)	Avail. Al (ug/g)
9273	Ah	0-20	7.5YR 4/2	96	3	1	6.13	5.03	2.01	0.66		6.4		410	
9274	Ah	0-20	7.5YR 4/2	93	2	5	5.71	4.90	2.13	0.71		6.6		420	
9271	Bf	25	5YR 4/6	93	1	6	6.52	5.78	1.46	0.45		4.0		970	
9272	Bfj	25	5YR 4/6	98	1	1	6.63	5.25	1.30	0.52		3.7		990	
9269	Bhj	40	10YR 5/6	100	0	0	6.21	5.45	2.01	0.13		6.1		790	
9270	Bm ₁	40	10YR 5/6	100	0	0	6.21	5.21	0.82	0.12		4.9		560	
9267	Bm ₂	65	10YR 5/4	100	1	0	6.19	5.22	0.44	0.12		6.0		740	
9268	Bm ₂	65	10YR 5/4	100	0	0	6.21	5.28	0.60	0.11		5.4		800	
9265	C	75	2.5Y 4/4	98	0	1	6.20	5.36	0.35	0.09		4.4		500	
9266	C	75	2.5Y 4/4	97	2	1	6.26	5.30	0.43	0.12		4.8		710	

SOIL PROFILE INFORMATION (cont'd.)

Site: Springwater Provincial Park

Classification: Orthic Sombric Brunisol

Sample No.	Horizon	Exchangeable Cations (ug/g)				C.E.C. (m.e.) 100g	Pyrophosphate (%)			Dithionite (%)			CaCO ₃ (%)	Metals (ug/g)			
		Ca	Mg	K	Al		Fe	Al	Mn	Fe	Al	Mn		Zn	Cu	Ni	Pb
9273	Ah	367	29	25.0	9.3	3.18	0.14	0.19	0.0015	0.55	0.27	0.003	1	24	22	97.0	4.6
9274	Ah	431	145	25.0	14.0	3.23	0.18	0.24	0.0018	0.45	0.26	0.004		26	36	4.4	5.8
9271	Bf	514	21	17.3	3.0	3.00	0.19	0.22	0.0004	0.56	0.28	0.001	2	20	26	110.0	1.2
9272	Bfj	503	26	21.0	2.34	2.76	0.13	0.19	0.0004	0.55	0.30	0.002	2	21	26	96.0	1.6
9269	Bhj	99	10	17.0	3.95	0.66	0.07	0.10	0.0009	0.42	0.15	0.003	1	15	24	94.0	1.1
9270	Bm ₁	151	10	17.0	4.75	1.57	0.09	0.13	0.0004	0.38	0.18	0.001		16	26	80.0	1.1
9267	Bm ₂	88	5	4.0	2.65	0.55	0.11	0.13	0.0030	0.36	0.18	0.009	1	14	26	5.1	1.4
9268	Bm ₂	109	7	17.0	2.60	0.69	0.07	0.08	0.0004	0.33	0.13	0.002	1	14	15	64.0	1.2
9265	C	88	5	2.4	1.90	0.51	0.21	0.09	0.0013	0.84	0.16	0.004	1	13	29	5.3	1.3
9266	C	88	5	4.0	1.90	0.51	0.15	0.09	0.0006	0.72	0.16	0.002	1	15	46	5.4	1.3

SOIL PROFILE INFORMATION

Horizon	Depth	Site: Cookstown	Date: 80/06/23
Ah	0	Location Code: 3001036	Parent Material: sandy till
	20	UTM: 17T 596150.0 4908500.0	Vegetation: grass
Ae	40	Classification: Eluviated Melanic Brunisol	
Bm	60	Landform: drumlin	Comments: air-dry colours given, very stoney at depth
Ck	80	Slope: moderate slopes	



Sample No.	Horizon	Depth (cm)	Colour	Sand (%)	Silt (%)	Clay (%)	pH (H ₂ O)	pH (CaCl ₂)	Organic C (%)	Total Nitrogen (mg/g)	Extr. S (ug/g)	Extr. SO ₄ (ug/g)	Avail. P (ug/g)	Total P (ug/g)	Avail. Al (ug/g)
9281	Ah	0-30	10YR 4/2	29	46	25	7.93	7.47	2.53	1.62		12.0		800	
9282	Ah	0-30	10YR 4/2	28	44	27	8.02	7.48	2.45	1.99		13.0		890	
9279	Ae	40	10YR 6/3	23	62	14	7.90	7.16	0.40	0.47		7.1		850	
9280	Ae	40	10YR 6/3	25	63	12	7.91	7.22	0.45	0.35		8.5		760	
9277	Bm	65	10YR 5/4	49	26	25	8.03	7.37	0.44	0.27		3.7		740	
9278	Bm	65	10YR 5/4	53	22	25	7.91	7.39	0.44	0.26		0.5		720	
9275	Ck	80	2.5Y 6/2	69	17	14	8.47	7.75	0.15	0.15		2.1		490	
9276	Ck	80	2.5Y 6/2	72	14	13	8.64	7.86	0.15	0.17		3.3		440	

SOIL PROFILE INFORMATION (cont'd.)

Site: Cookstown

Classification: Eluviated Melanic Brunisol

Sample No.	Horizon	Exchangeable Cations (ug/g)				C.E.C. (m.e.) 100g	Pyrophosphate (%)			Dithionite (%)			CaCO ₃ (%)	Metals (ug/g)			
		Ca	Mg	K	Al		Fe	Al	Mn	Fe	Al	Mn		Zn	Cu	Ni	Pb
9281	Ah	2412	59	47		12.63	0.09	0.06	0.0073	0.80	0.15	0.062	1	52	20	8.8	8.1
9282	Ah	2412	59	47		12.63	0.12	0.08	0.0150	0.83	0.16	0.059	2	53	18	8.0	7.5
9279	Ae	1017	11	39		5.25	0.13	0.11	0.0027	0.65	0.17	0.021	2	28	14	9.2	3.7
9280	Ae	976	11	39		5.05	0.13	0.11	0.0020	0.63	0.17	0.020	1	28	17	8.6	3.6
9277	Bm	1507	43	32		7.94	0.07	0.02	0.0021	0.90	0.11	0.035	2	32	29	12.0	2.6
9278	Bm	1625	51	36		8.61	0.07	0.02	0.0021	0.93	0.12	0.033	2	32	28	13.0	3.5
9275	Ck	677	25	28		3.64	0.01	0.01	0.0006	0.22	0.03	0.011	22	15	14	7.0	1.4
9276	Ck	1507	43	32		7.94	0.01	0.13	0.0015	0.23	0.03	0.011	24	16	19	6.9	2.6

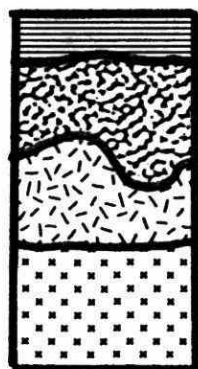
SOIL PROFILE INFORMATION

Horizon Depth

Site: Earl Rowe Provincial Park

Date: 80/06/23

Ah



0

Bm

20

Location Code: 2001037

Parent Material: lacustrine sand

40

UTM: 17T 587450.0 4890150.0

Vegetation: maple

C

60

Classification: Orthic Melanic Brunisol

Landform: sand plain

Comments:

80

Slope: simple, class 1, level

Ck

100

Sample No.	Horizon	Depth (cm)	Colour	Sand (%)	Silt (%)	Clay (%)	pH (H ₂ O)	pH (CaCl ₂)	Organic C (%)	Total Nitrogen (mg/g)	Extr. S (ug/g)	Extr. SO ₄ (ug/g)	Avail. P (ug/g)	Total P (ug/g)	Avail. Al (ug/g)
9292	Ah	0-15	5YR 2.5/1	74	7	19	6.57	6.04	4.56	3.34		14.0		410	
9293	Ah	0-15	5YR 2.5/1	69	5	26	6.48	5.82	4.20	2.00		14.0		300	
9289	Bm	20	10YR 5/8	92	3	5	6.46	5.37	0.47	0.28		2.4		340	
9290	Bm	20	10YR 5/8	93	3	4	6.35	5.40	0.44	0.26		2.7		310	
9287	IC	40	10YR 5/6	90	2	8	6.76	5.80	0.23	0.12		1.2		510	
9288	IC	40	10YR 5/6	91	2	8	6.66	5.70	0.27	0.12		1.4		250	
9285	ICk	65	10YR 4/4	86	3	11	7.91	7.35	0.15	0.09		0.5		290	
9286	ICk	65	10YR 4/4	89	2	9	6.91	5.76	0.23	0.10		2.5		340	
9283	IICk	95	10YR 6/4	87	1	12	8.55	7.66	0.15	0.13		1.1		390	
9284	IICk	95	10YR 6/4	87	2	11	8.67	7.64	0.11	0.09		1.0		300	

SOIL PROFILE INFORMATION (cont'd.)

Site: Earl Rowe Provincial Park

Classification: Orthic Melanic Brunisol

Sample No.	Horizon	Exchangeable Cations (ug/g)				C.E.C. (m.e.) 100g	Pyrophosphate (%)			Di thionite (%)			CaCO3 (%)	Metals (ug/g)			
		Ca	Mg	K	Al		Fe	Al	Mn	Fe	Al	Mn		Zn	Cu	Ni	Pb
9292	Ah	2231	165	88		12.67	0.10	0.06	0.1860	0.31	0.040	0.081	3	73	17	5.8	17.0
9293	Ah	1701	120	63		9.61	0.11	0.07	0.0920	0.32	0.040	0.077	3	70	20	5.1	17.0
9289	Bm	336	26	12	2.65	2.05	0.11	0.11	0.0041	0.39	0.120	0.012	3	31	29	8.4	1.6
9290	Bm	302	29	12	2.65	2.52	0.10	0.10	0.0025	0.32	0.120	0.006	2	26	27	92.0	1.2
9287	IC	200	17	20		1.17	0.06	0.05	0.0044	0.27	0.070	0.012	2	15	16	130.0	2.0
9288	IC	200	17	24		1.18	0.07	0.06	0.0059	0.25	0.068	0.011	2	17	22	130.0	3.1
9285	Ick	446	13	28		2.39	0.02	0.01	0.0031	0.20	0.040	0.011	7	13	24	100.0	1.3
9286	Ick	220	13	20		1.24	0.05	0.04	0.0038	0.29	0.070	0.013	2	14	25	95.0	1.8
9283	IICK	261	4	24		1.38	0.01	0.01	0.0018	0.18	0.030	0.009	17	11	20	120.0	1.3
9284	IICK	261	4	24		1.38	0.01	0.00	0.0018	0.15	0.020	0.009	19	12	23	97.0	1.3

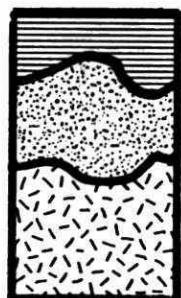
SOIL PROFILE INFORMATION

Horizon Depth

Site: Bruce's Mill Conservation Area

Date: 80/06/25

Ah



0

Location Code: 3001038

Parent Material: glacial till

20

UTM: 17T 632700.0 4866650.0

Vegetation: maple, birch

Bf

40

Classification: Sombric Humo-Ferric Podzol

60

Landform: bevelled till plain

Comments: faint mottles at 70 cm. (7.5YR4/4)

C

80

Slope: level

Sample No.	Horizon	Depth (cm)	Colour	Sand (%)	Silt (%)	Clay (%)	pH (H ₂ O)	pH (CaCl ₂)	Organic C (%)	Total Nitrogen (mg/g)	Extr. S (ug/g)	Extr. SO ₄ (ug/g)	Avail. P (ug/g)	Total P (ug/g)	Avail. Al (ug/g)
9300	Ah	0-20	5YR 2.5/1	24	28	48	7.01	6.54	5.32	2.91		16.0		510	
9301	Ah	0-20	5YR 2.5/1	41	36	23	6.99	6.53	4.35	2.87		14.0		410	
9298	Bf	35	7.5YR 5/6	43	44	13	7.72	5.92	2.23	1.58		11.0		500	
9299	Bf	35	7.5YR 5/6	43	47	10	6.16	5.45	1.93	0.93		14.0		310	
9296	C	45	10YR 5/4	50	27	23	7.25	6.55	0.85	0.39		4.4		420	
9297	C	45	10YR 5/4	44	39	17	7.38	6.57	1.09	0.66		7.3		420	
9294	C	70	10YR 6/4	62	14	23	7.56	6.98	0.32	0.26		5.0		580	
9295	C	70	10YR 6/4	53	25	22	7.62	7.05	0.32	0.27		5.4		500	

SOIL PROFILE INFORMATION (cont'd.)

Site: Bruce's Mill Conservation Area

Classification: Sombric Humo-Ferric Podzol

Sample No.	Horizon	Exchangeable Cations (ug/g)				C.E.C. (m.e.) 100g	Pyrophosphate (%)			Dithionite (%)			CaCO ₃ (%)	Metals (ug/g)			
		Ca	Mg	K	Al		Fe	Al	Mn	Fe	Al	Mn		Zn	Cu	Ni	Pb
9300	Ah	4010	65	110		20.79	0.48	0.20	0.0220	1.10	0.12	0.040	2	60	30	6.8	22.0
9301	Ah	3428	119	77		18.14	0.40	0.16	0.0150	0.98	0.12	0.029	1	55	22	6.2	20.0
9298	Bf	1770	74	32		9.50	0.67	0.43	0.0040	1.20	0.55	0.040	2	41	23	7.6	7.6
9299	Bf	1303	81.4	27		5.01	0.84	0.33	0.0030	1.30	0.43	0.015	1	33	13	5.1	6.9
9296	C	916	25	24		4.82	0.05	0.07	0.0015	0.58	0.24	0.025	0	26	21	9.3	6.8
9297	C	1161	34	24		6.12	0.21	0.21	0.0038	0.76	0.32	0.028	1	33	24	10.0	5.3
9294	C	1746	65	36		9.31	0.06	0.02	0.0060	0.94	0.097	0.036	2	34	24	15.0	4.5
9295	C	1229	47	32		6.58	0.04	0.02	0.0035	0.81	0.084	0.031	2	31	26	12.0	3.6

SOIL PROFILE INFORMATION

Horizon Depth

Site: Whitchurch Conservation Area

Date: 80/06/25

Ah

0

Location Code: 3001039

Parent Material: till

Ae

20

UTM: 17T 631500.0 4875550.0

Vegetation: red pine

Bm

40

Classification: Eluviated Melanic Brunisol

60

Landform: kame moraine

Comments: irregular, discontinuous Ae

C

80

Slope: nearly level

100



Sample No.	Horizon	Depth (cm)	Colour	Sand (%)	Silt (%)	Clay (%)	pH (H ₂ O)	pH (CaCl ₂)	Organic C (%)	Total Nitrogen (mg/g)	Extr. S (ug/g)	Extr. SO ₄ (ug/g)	Avail. P (ug/g)	Total P (ug/g)	Avail. Al (ug/g)
9307	Ah	0-20	7.5YR 3/2	92	4	4	6.28	5.45	1.34	0.73		9.0		340	
9308	Ah	0-20	7.5YR 3/2	91	3	5	6.32	5.46	1.77	0.74		9.4		370	
9306	Ae	30	5YR 8/1	90	2	8	6.91	5.82	0.59	0.18		2.7		100	
9304	Bm	50	7.5YR 5/6	92	1	8	6.94	6.11	0.69	0.24		2.8		290	
9305	Bm	50	7.5YR 5/6	94	0	6	7.00	6.16	0.59	0.27		2.9		510	
9302	C	70	10YR 5/6	93	0	7	6.91	6.08	0.25	0.26		3.0		540	
9303	C	70	10YR 5/6	91	0	9	7.11	6.12	0.21	0.11		1.7		380	

SOIL PROFILE INFORMATION (cont'd.)

Site: Whitchurch Conservation Area

Classification: Eluviated Melanic Brunisol

Sample No.	Horizon	Exchangeable Cations (ug/g)				C.E.C. (m.e.) 100g	Pyrophosphate (%)			Dithionite (%)			CaCO3 (%)	Metals (ug/g)			
		Ca	Mg	K	Al		Fe	Al	Mn	Fe	Al	Mn		Zn	Cu	Ni	Pb
9307	Ah	825	43	25	4.60	0.44	0.07	0.08	0.0032	0.35	0.07	0.011	1	37	23.0	32.0	7.4
9308	Ah	870	38	25	2.70	5.63	0.10	0.11	0.0056	0.46	0.09	0.014	1	39	8.6	29.0	10.0
9306	Ae	604	34	31		3.35	0.10	0.05	0.0009	0.29	0.04	0.003	1	25	16.0	110.0	1.2
9304	Bm	635	21	16		3.36	0.13	0.14	0.0011	0.37	0.11	0.004		26	17.0	66.0	1.2
9305	Bm	572	19	16		3.03	0.09	0.13	0.0016	0.31	0.10	0.005	1	19	11.0	57.0	1.8
9302	C	281	6	16		1.48	0.05	0.09	0.0044	0.14	0.05	0.007	1	20	21.0	3.6	1.2
9303	C	241	6	16		1.28	0.05	0.07	0.0052	0.24	0.004	0.011	1	13	13.0	3.6	1.2

SOIL PROFILE INFORMATION

Horizon Depth Site: Roger's Reservoir Conservation Area Date: 80/06/25

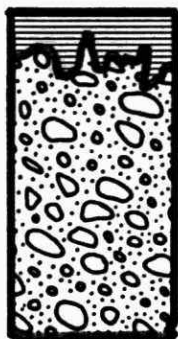
Ahk 0 Location Code: 3001040 Parent Material: sandy till

20 UTM: 17T 623300.0 4882900.0 Vegetation: grass

Ck 40 Classification: Orthic Humic Regosol

60 Landform: till plain Comments:

80 Slope: moderate slope



Sample No.	Horizon	Depth (cm)	Colour	Sand (%)	Silt (%)	Clay (%)	pH (H ₂ O)	pH (CaCl ₂)	Organic C (%)	Total Nitrogen (mg/g)	Extr. S (ug/g)	Extr. SO ₄ (ug/g)	Avail. P (ug/g)	Total P (ug/g)	Avail. Al (ug/g)
9313	Ahk	0-20	10YR 3/2	77	8	14	8.11	7.60	1.77	1.38		6.2		460	
9314	Ahk	0-20	10YR 3/2	75	9	16	7.93	7.50	2.75	2.00		7.8		630	
9311	Ck	40	10YR 5/3	70	12	18	8.28	7.79	0.64	0.39		6.0		440	
9312	Ck	40	10YR 5/3	68	12	20	8.34	7.77	0.65	0.52		7.1		560	
9309	Ck	80	10YR 4/3	72	14	14	8.15	7.66	0.72	0.62		6.6		650	
9310	Ck	80	10YR 4/3	74	14	13	8.25	7.76	0.64	0.38		8.4		680	

SOIL PROFILE INFORMATION (cont'd.)

Site: Roger's Reservoir Conservation Area

Classification: Orthic Humic Regosol

Sample No.	Horizon	Exchangeable Cations (ug/g)				C.E.C. (m.e.) 100g	Pyrophosphate (%)			Dithionite (%)			CaCO ₃ (%)	Metals (ug/g)			
		Ca	Mg	K	Al		Fe	Al	Mn	Fe	Al	Mn		Zn	Cu	Ni	Pb
9313	Ahk	1571	51	71		8.42	0.03	0.01	0.0026	0.26	0.01	0.009	35	32	29	47.0	6.2
9314	Ahk	1920	77	84		10.40	0.03	0.01	0.0030	0.26	0.01	0.009	32	36	26	30.0	10.0
9311	Ck	1093	28	32		5.75	0.03	0.01	0.0018	0.28	0.01	0.009	27	25	22	4.7	1.6
9312	Ck	1116	28	24		5.84	0.03	0.01	0.0022	0.30	0.02	0.010	27	25	18	33.0	2.1
9309	Ck	1183	30	24		6.19	0.04	0.01	0.0016	0.29	0.01	0.008	16	23	15	3.9	1.0
9310	Ck	1161	30	24		6.08	0.04	0.02	0.0022	0.24	0.01	0.007	16	25	22	3.8	1.4

SOIL PROFILE INFORMATION

Horizon	Depth	Site: Sibbald Point Provincial Park	Date: 80/06/26
Ah	0	Location Code: 3001041	Parent Material: lacustrine sand
	20	UTM: 17T 634450.0 4909600.0	Vegetation: beech, cedar, pine, birch
Bm	40	Classification: Gleyed Melanic Brunisol	
Ckg	60	Landform: sand plain/beach shoreline	Comments: distinct mottles common in C
	80	Slope: level	(10YR 5/8). organic mottles in Bm
			(10YR 2.5/1), white concretions in Ckg

Sample No.	Horizon	Depth (cm)	Colour	Sand (%)	Silt (%)	Clay (%)	pH (H ₂ O)	pH (CaCl ₂)	Organic C (%)	Total Nitrogen (mg/g)	Extr. S (ug/g)	Extr. SO ₄ (ug/g)	Avail. P (ug/g)	Total P (ug/g)	Avail. Al (ug/g)
9321	Ah	0-30	10YR2.5/1	76	8	16	7.84	7.28	3.43	0.19		12.0		640	
9322	Ah	0-30	10YR2.5/1	77	8	15	7.76	7.21	3.31	1.85		14.1		670	
9319	Bm	35	10YR 5/4	88	3	9	7.97	7.19	0.67	0.18		6.3		820	
9320	Bm	35	10YR 5/4	87	5	9	7.79	7.24	0.57	0.16		4.9		790	
9317	Bm ₂	50	10YR 5/6	82	4	13	8.19	7.34	0.47	0.19		5.1		610	
9318	Bm ₂	50	10YR 5/6	83	6	11	7.18	7.32	0.47	0.18		4.7		810	
9315	Ckg	70	10YR 6/2	75	6	18	8.75	7.86	0.45	0.17		5.9		850	
9316	Ckg	70	10YR 6/2	87	4	9	8.87	7.96	0.31	0.19		4.4		850	

SOIL PROFILE INFORMATION (cont'd.)

Site: Sibbald Point Provincial Park

Classification: Gleyed Melanic Brunisol

Sample No.	Horizon	Exchangeable Cations (ug/g)				C.E.C. (m.e.) 100g	Pyrophosphate (%)			Dithionite (%)			CaCO ₃ (%)	Metals (ug/g)			
		Ca	Mg	K	Al		Fe	Al	Mn	Fe	Al	Mn		Zn	Cu	Ni	Pb
9321	Ah	2340	67	53		12.36	0.16	0.10	0.0053	0.46	0.220	0.009	1	26	16.0	2.5	2.4
9322	Ah	2163	67	45		11.46	0.19	0.12	0.0060	0.45	0.200	0.009	1	22	6.3	2.9	1.7
9319	Bm	718	24	27		3.83	0.11	0.04	0.0037	0.47	0.090	0.010	1	11	7.5	2.0	1.1
9320	Bm	553	19	23		2.96	0.13	0.04	0.0042	0.46	0.100	0.017	1	13	7.7	2.7	1.4
9317	Bm ₂	1049	47	36		5.69	0.07	0.02	0.0024	0.88	0.077	0.020	0	17	11.0	6.5	1.1
9318	Bm ₂	973	48	34		5.32	0.11	0.03	0.0031	0.81	0.100	0.029	0	16	19.0	5.9	1.3
9315	Ckg	614	21	24		3.28	0.01	0.00	0.0015	0.23	0.020	0.004	19	10	8.6	3.2	1.2
9316	Ckg	530	17	24		2.82	0.01	0.00	0.0015	0.38	0.027	0.011	18	12	13.0	4.4	1.1

SOIL PROFILE INFORMATION

Horizon Depth

Site: Hilton Falls Conservation Area

Date: 80/07/18

Ah 0

Location Code: 3001062

Parent Material: Niagara Escarpment

Bm₁ 20

UTM: 17T 583000.0 4817350.0

Vegetation: maple, beech, white birch,
ironwood

Bm₂ 40

Classification: Orthic Sombric Brunisol

C 60

Landform: limestone plain

Comments: pieces of limestone at 75 cm

80

Slope: complex, gentle slopes



Sample No.	Horizon	Depth (cm)	Colour	Sand (%)	Silt (%)	Clay (%)	pH (H ₂ O)	pH (CaCl ₂)	Organic C (%)	Total Nitrogen (mg/g)	Extr. S (ug/g)	Extr. SO ₄ (ug/g)	Avail. P (ug/g)	Total P (ug/g)	Avail. Al (ug/g)
9495	Ah	0-17	10YR 3/2	38	45	17	5.64	4.92	3.72	2.77		14.0		1050	
9496	Ah	0-17	10YR 3/2	38	45	17	5.47	4.70	3.82	2.64		14.0		890	
9493	Bm ₁	30	10YR 5/6	41	50	9	5.43	4.51	0.67	0.51		13.0		680	
9494	Bm ₁	30	10YR 5/6	42	50	8	5.64	4.68	0.67	0.62		11.0		980	
9491	Bm ₂	50	10YR 5/6	48	46	6	5.79	4.77	0.36	0.29		11.0		570	
9492	Bm ₂	50	10YR 5/6	45	48	6	6.29	5.25	0.31	0.24		5.6		540	
9489	C	70	5YR 3/4	44	34	21	6.64	5.76	0.19	0.38		4.4		720	
9490	C	70	5YR 3/4	37	45	18	6.49	5.61	0.20	0.19		3.5		660	

SOIL PROFILE INFORMATION (cont'd.)

Site: Hilton Falls Conservation Area

Classification: Orthic Sombric Brunisol

Sample No.	Horizon	Exchangeable Cations (ug/g)				C.E.C. (m.e.) 100g	Pyrophosphate (%)			Dithionite (%)			CaCO ₃ (%)	Zn	Metals (ug/g)		
		Ca	Mg	K	Al		Fe	Al	Mn	Fe	Al	Mn			Cu	Ni	Pb
9495	Ah	302	91	59	64.00	3.00	0.22	0.11	0.0920	0.96	0.22	0.197		110	24	9.7	26.0
9496	Ah	1121	133	83	14.00	6.89	0.20	0.11	0.0920	0.98	0.23	0.181		110	28	9.9	30.0
9493	Bm ₁	168	37	34	61.00	1.66	0.14	0.14	0.0230	1.10	0.28	0.084		76	35	13.0	6.3
9494	Bm ₁	642	115	56	33.00	6.94	0.15	0.16	0.0150	1.10	0.31	0.068		70	34	14.0	5.7
9491	Bm ₂	78	29	14	12.00	0.85	0.08	0.09	0.0110	0.73	0.17	0.070		43	35	13.0	5.2
9492	Bm ₂	168	48	18	2.55	1.32	0.06	0.07	0.0120	0.74	0.15	0.072	5	41	25	12.0	5.4
9489	C	558	223	20		4.62	0.07	0.02	0.0053	1.30	0.14	0.110	3	66	45	16.0	6.3
9490	C	517	196	22		4.20	0.06	0.02	0.0028	1.20	0.13	0.100	1	62	47	17.0	4.9

SOIL PROFILE INFORMATION

Horizon	Depth	Site: Hilton Falls Conservation Area	Date: 81/08/05
Ah	0	Location Code: 3001062	Parent Material: Niagara Escarpment till
Bm ₁	20	UTM: 17T 583000.0 4817350.0	Vegetation: ironwood, sugar maple, white birch
Bm ₂	40	Classification: Orthic Sombric Brunisol	
C ₁	60	Landform: limestone outcrop	Comments: red clay layer in C ₁ , (slightly effervescent) fragmented limestone at 70 cm. organic mottles (10YR 3/1) at 18 cm., resurvey
C ₂	80	Slope: complex, class 4, gentle slopes	



Sample No.	Horizon	Depth (cm)	Colour	Sand (%)	Silt (%)	Clay (%)	pH (H ₂ O)	pH (CaCl ₂)	Organic C (%)	Total Nitrogen (mg/g)	Extr. S (ug/g)	Extr. SO ₄ (ug/g)	Avail. P (ug/g)	Total P (ug/g)	Avail. Al (ug/g)
17522	Ah	0-17	10YR 3/1	39	43	18	5.3	4.8	3	3.2			31		1.300
17521	Ah	0-17	10YR 3/1	35	46	19	5.3	4.8	4	2.4			39		1.400
17520	Bm ₁	17-20	10YR 4/6	36	49	15	5.4	4.7	2	1.2			35		0.910
17519	Bm ₁	17-20	10YR 4/6	35	49	16	5.5	4.8	1	1.3			37		0.550
17518	Bm ₂	20-30	10YR 4/4	36	51	13	5.8	5.0	1	0.6			34		0.240
17517	Bm ₂	20-30	10YR 4/4	36	50	14	5.7	4.8	1	0.6			36		0.160
17516	C ₁	30-50	10YR 5/6	44	45	11	6.0	5.0	1	0.2			4		0.200
17515	C ₁	30-50	10YR 5/6	42	43	15	5.9	5.1	1	0.3			7		0.160
17514	C ₂	50-70	10YR 6/3	46	39	15	6.3	5.4	1	0.2			3		0.080
17513	C ₂	50-70	10YR 6/3	50	40	10	6.0	5.0	1	0.2			3		0.080

SOIL PROFILE INFORMATION (cont'd.)

Site: Hilton Falls Conservation Area

Classification: Orthic Sombric Brunisol

Sample No.	Horizon	Exchangeable Cations (ug/g)				C.E.C. (m.e.) 100g	Pyrophosphate (%)			Dithionite (%)			CaCO ₃ (%)	Metals (ug/g)			
		Ca	Mg	K	Al		Fe	Al	Mn	Fe	Al	Mn		Zn	Cu	Ni	Pb
17522	Ah	1390	260	97	7	9.30											
17521	Ah	1370	250	83	3	5.88											
17520	Bm ₁	830	130	44	6	5.36											
17519	Bm ₁	830	130	47	4	5.33											
17518	Bm ₂	440	110	35	3	3.36											
17517	Bm ₂	390	81	50	9	1.97											
17516	C ₁	180	45	29	1	1.35							3				
17515	C ₁	210	51	23	3	1.06							3				
17514	C ₂	360	120	23	3	2.79							3				
17513	C ₂	210	63	17	3	1.13											

SOIL PROFILE INFORMATION

Horizon Depth

Site: Silent Lake Provincial Park

Date: 80/07/23

Ah 0

Location Code: 4001072

Parent Material: sandy till

Bfj 20

UTM: 17T 730950.0 4977950.0

Vegetation: white pine, white birch, sugar maple

Bm 40

Classification: Sombric Humo-Ferric Podzol

60

Landform: shallow till and rock ridges

Comments: very stoney at 55-70 cm stones throughout profile

C 80

Slope: very gentle slope



Sample No.	Horizon	Depth (cm)	Colour	Sand (%)	Silt (%)	Clay (%)	pH (H ₂ O)	pH (CaCl ₂)	Organic C (%)	Total Nitrogen (mg/g)	Extr. S (ug/g)	Extr. SO ₄ (ug/g)	Avail. P (ug/g)	Total P (ug/g)	Avail. Al (ug/g)
9566	Ah	0-17	10YR 3/3	62	32	6	5.37	4.56	2.85	1.67		15.0		1005	
9567	Ah	0-17	10YR 3/3	69	25	6	5.34	4.57	3.23	1.77		13.0		1004	
9564	Bf	25	10YR 5/8	60	37	3	5.44	4.71	1.92	1.10		5.8		1140	
9565	Bf	25	10YR 5/8	61	36	3	5.43	4.70	1.78	0.92		6.8		1040	
9562	Bm	35	10YR 5/6	71	26	3	5.69	4.78	1.12	0.59		5.2		1000	
9563	Bm	35	10YR 5/6	62	36	2	5.54	4.70	1.37	0.70		5.2		1040	
9560	Bm	50	10YR 5/6	80	16	4	5.68	4.81	0.73	0.36		3.6		960	
9561	Bm	50	10YR 5/6	74	22	4	5.64	4.80	0.77	0.44		4.4		960	
9558	C	65	10YR 7/2	84	13	4	5.85	4.96	0.25	0.11		2.6		910	
9559	C	65	10YR 7/2	80	16	4	5.90	4.96	0.21	0.11		2.4		930	

SOIL PROFILE INFORMATION (cont'd.)

Site: Silent Lake Provincial Park

Classification: Sombric Humo-Ferric Podzol

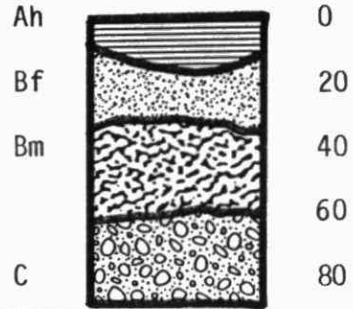
Sample No.	Horizon	Exchangeable Cations (ug/g)				C.E.C. (m.e.) 100g	Pyrophosphate (%)			Dithionite (%)			CaCO ₃ (%)	Zn	Metals (ug/g)		
		Ca	Mg	K	Al		Fe	Al	Mn	Fe	Al	Mn			Cu	Ni	Pb
9566	Ah	149	13.0	121	36	1.51	0.22	0.42	0.0150	1.10	0.54	0.033		50	17.0	6.1	11.0
9567	Ah	170	13.0	131	41	1.70	0.24	0.47	0.0160	1.20	0.59	0.038		53	17.0	5.8	12.0
9564	Bf	64	2.2	50	15	0.60	0.15	0.44	0.0012	0.94	0.68	0.008		38	9.2	7.3	2.5
9565	Bf	74	2.2	45	13	0.63	0.14	0.44	0.0012	0.92	0.66	0.007		36	9.7	6.8	2.5
9562	Bm	53	2.2	40	11	0.38	0.08	0.23	0.0007	0.58	0.41	0.004		34	15.0	8.7	2.3
9563	Bm	42	2.2	40	14	0.47	0.07	0.18	0.0005	0.54	0.45	0.003		30	11.0	6.2	1.9
9560	Bm	42	2.4	45	9	0.43	0.05	0.15	0.0004	0.43	0.26	0.002		30	21.0	9.7	1.7
9561	Bm	53	2.2	45	10	0.39	0.05	0.15	0.0004	0.48	0.33	0.003		30	18.0	8.9	2.1
9558	C	21	2.4	50	5	0.30	0.01	0.07	0.0004	0.28	0.11	0.005		24	33.0	7.7	1.6
9559	C	21	2.4	55	5	0.27	0.01	0.06	0.0004	0.28	0.11	0.006		23	37.0	8.1	2.5

SOIL PROFILE INFORMATION

Horizon Depth

Site: Silent Lake Provincial Park

Date: 81/07/14



Location Code: 3001072

Parent Material: sandy till

UTM: 17T 730950.0 4977950.0

Vegetation: pine, birch, maple

Classification: Sombric Humo-Ferric Podzol

Landform: shallow till and rock ridges

Comments: very stoney at 55-70 cm.
resurvey

Slope: gentle slope

Sample No.	Horizon	Depth (cm)	Colour	Sand (%)	Silt (%)	Clay (%)	pH (H ₂ O)	pH (CaCl ₂)	Organic C (%)	Total Nitrogen (mg/g)	Extr. S (ug/g)	Extr. SO ₄ (ug/g)	Avail. P (ug/g)	Total P (ug/g)	Avail. Al (ug/g)
17477	Ah	0-17	10YR 4/1				5.0	4.4							6.40
17476	Ah	0-17	10YR 4/1				5.0	4.4							5.20
17475	Bf	25	10YR 6/4				5.4	4.6							1.90
17474	Bf	25	10YR 6/4				5.3	4.6							1.80
17473	Bm	35	2.5Y 6/4				5.4	4.6							1.50
17472	Bm	35	2.5Y 6/4				5.4	4.7							1.50
17471	Bm	50	10YR 6/2				5.4	4.7							1.20
17470	Bm	50	10YR 6/2				5.4	4.6							1.60
17469	C	55-70	2.5Y 6/2				5.6	4.7							0.74
17468	C	55-70	2.5Y 6/2				5.8	4.9							0.86

SOIL PROFILE INFORMATION (cont'd.)

Site: Silent Lake Provincial Park

Classification: Sombric Humo-Ferric Podzol

Sample No.	Horizon	Exchangeable Cations (ug/g)				C.E.C. (m.e.) 100g	Pyrophosphate (%)			Dithionite (%)			CaCO ₃ (%)	Metals (ug/g)			
		Ca	Mg	K	Al		Fe	Al	Mn	Fe	Al	Mn		Zn	Cu	Ni	Pb
17477	Ah	1000	66	120	46	6.27											
17476	Ah	1110	57	96	39	6.64											
17475	Bf	79	3	8	23	0.67											
17474	Bf	79	6	8	19	0.66											
17473	Bm	63	3	8	19	0.55											
17472	Bm	63	3	8	13	0.48											
17471	Bm	40	3	5	6	0.29											
17470	Bm	32	3	11	13	0.34											
17469	C	24	6	14	1	0.21											
17468	C	32	3	17	4	0.27											

SOIL PROFILE INFORMATION

Horizon Depth

Site: Darlington Provincial Park

Date: 80/07/29

Ap



0

Location Code: 3001073

Parent Material: lacustrine clay

20

UTM: 17T 678500.0 4860200.0

Vegetation: pine reforested

Bt

40

Classification: Orthic Gray Brown Luvisol

60

Landform: clay plain

Comments: evidence of plowing

C

80

Slope: level

Sample No.	Horizon	Depth (cm)	Colour	Sand (%)	Silt (%)	Clay (%)	pH (H ₂ O)	pH (CaCl ₂)	Organic C (%)	Total Nitrogen (mg/g)	Extr. S (ug/g)	Extr. SO ₄ (ug/g)	Avail. P (ug/g)	Total P (ug/g)	Avail. Al (ug/g)
9584	Ahp	0-10	10YR 3/2	39	30	32	6.16	5.52	2.85	1.69		17		720	
9585	Ahp	0-10	10YR 3/2	33	36	30	6.18	5.58	3.01	1.43		15		670	
9582	Ahp	30	10YR 4/2	27	36	37	6.57	5.96	1.26	0.87		12		660	
9583	Ahp	30	10YR 4/2	35	32	32	6.51	5.89	1.33	0.94		12		610	
9580	Bt	40	10YR 5/4	20	33	46	7.00	6.50	0.69	0.51		14		800	
9581	Bt	40	10YR 5/4	21	33	46	6.96	6.39	0.49	0.44		13		770	
9578	C	60	10YR 4/3	8	35	57	7.51	7.12	0.47	0.66		24		1100	
9579	C	60	10YR 4/3	9	33	59	7.51	7.14	0.47	0.53		25		1040	

SOIL PROFILE INFORMATION (cont'd.)

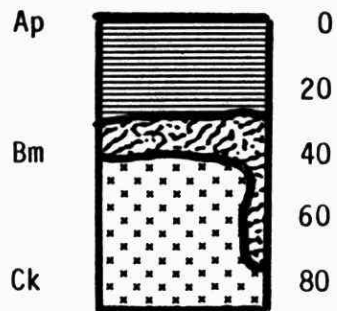
Site: Darlington Provincial Park

Classification: Orthic Gray Brown Luvisol

Sample No.	Horizon	Exchangeable Cations (ug/g)				C.E.C. (m.e.) 100g	Pyrophosphate (%)			Dithionite (%)			CaCO ₃ (%)	Metals (ug/g)			
		Ca	Mg	K	Al		Fe	Al	Mn	Fe	Al	Mn		Zn	Cu	Ni	Pb
9584	Ahp	1861	128	100		10.58	0.12	0.05	0.0140	0.82	0.11	0.029	1	64	14	15	22.0
9585	Ahp	1808	128	105		10.33	0.13	0.05	0.0150	0.87	0.11	0.031	0	64	14	15	27.0
9582	Ahp	2090	136	70		11.71	0.13	0.05	0.0066	1.10	0.13	0.040	2	65	18	21	8.7
9583	Ahp	1808	120	65		10.16	0.12	0.05	0.0076	0.86	0.11	0.030	4	56	14	15	8.5
9580	Bt	276	160	55		2.80	0.10	0.04	0.0038	1.10	0.13	0.039	1	71	22	25	7.5
9581	Bt	3010	176	58		16.64	0.09	0.03	0.0034	1.10	0.13	0.040	2	69	22	27	5.5
9578	C	4213	241	105		23.29	0.02	0.01	0.0024	1.10	0.13	0.047	2	100	35	38	8.5
9579	C	405	198	88		3.82	0.04	0.03	0.0036	1.20	0.14	0.047	1	95	34	37	9.1

SOIL PROFILE INFORMATION

Horizon Depth



Site: Enniskillen Conservation Area

Date: 80/07/29

Location Code: 3001074

Parent Material: sandy till

UTM: 17T 677850.0 4874800.0

Vegetation: pine, fir, grass

Classification: Orthic Melanic Brunisol

Landform: drumlin

Comments: white chalk, carbonate concretions at depth

Slope: moderate slopes

Sample No.	Horizon	Depth (cm)	Colour	Sand (%)	Silt (%)	Clay (%)	pH (H ₂ O)	pH (CaCl ₂)	Organic C (%)	Total Nitrogen (mg/g)	Extr. S (ug/g)	Extr. SO ₄ (ug/g)	Avail. P (ug/g)	Total P (ug/g)	Avail. Al (ug/g)
9594	Ap	0-10	10YR 3/2	66	21	13	8.17	7.60	1.41	1.14		11.0		780	
9595	Ap	0-10	10YR 3/2	62	25	13	8.20	7.63	1.10	0.89		7.8		530	
9592	Apk	25	10YR 3/3	61	27	12	8.34	7.68	1.09	0.85		8.2		720	
9593	Ap	25	10YR 3/3	58	27	15	8.22	7.70	0.78	0.66		6.9		680	
9590	Bmk	35	7.5Y 4/4	56	29	15	8.49	7.82	0.53	0.42		5.4		860	
9591	Bm	35	7.5Y 4/4	54	31	16	8.29	7.76	0.49	0.33		6.4		710	
9588	Ck	50	2.5Y 6/2	69	18	13	9.04	7.97	0.19	0.13		2.3		380	
9589	Ck	50	2.5Y 6/2	64	25	12	8.89	7.91	0.23	0.16		3.9		490	
9586	Ck	70	2.5Y 6/2	67	24	9	9.03	7.84	0.15	0.13		2.5		470	
9587	Ck	70	2.5Y 6/2	62	25	13	9.01	7.92	0.17	0.14		3.3		450	

SOIL PROFILE INFORMATION (cont'd.)


Site: Enniskillen Conservation Area

Classification: Orthic Melanic Brunisol

Sample No.	Horizon	Exchangeable Cations (ug/g)				C.E.C. (m.e.) 100g	Pyrophosphate (%)			Dithionite (%)			CaCO ₃ (%)	Metals (ug/g)			
		Ca	Mg	K	Al		Fe	Al	Mn	Fe	Al	Mn		Zn	Cu	Ni	Pb
9594	Ap	1435	27.0	67.3		7.56	0.03	0.03	0.0076	0.52	0.07	0.026	4	35	4.6	5.0	7.1
9595	Ap	1400	17.9	37.7		7.23	0.03	0.03	0.0054	0.58	0.08	0.030	4	37	4.9	5.2	6.0
9592	Apk	1469	13.4	23.1		7.52	0.04	0.03	0.0067	0.65	0.09	0.031	5	33	4.4	5.6	5.5
9593	Ap	1349	13.4	13.3		6.84	0.04	0.13	0.0071	0.59	0.08	0.028	4	33	5.0	5.4	4.7
9590	Bmk	1341	11.2	16.4		6.84	0.03	0.02	0.0033	0.82	0.09	0.037	8	31	8.0	9.3	3.2
9591	Bm	1231	6.7	14.0		6.24	0.08	0.04	0.0035	0.75	0.10	0.036	2	35	6.0	7.8	2.2
9588	Ck	509	1.0	10.0		2.58	0.00	0.00	0.0011	0.28	0.02	0.014	42	16	5.9	4.3	1.4
9589	Ck	665	4.5	9.1		3.39	0.00	0.00	0.0011	0.31	0.03	0.016	37	17	6.1	5.0	1.5
9586	Ck	459	1.0	7.0		2.32	0.00	0.00	0.0010	0.23	0.02	0.011	36	13	5.5	3.1	3.3
9587	Ck	535	2.9	7.0		2.71	0.00	0.00	0.0009	0.25	0.02	0.013	39	14	5.8	4.2	2.6

SOIL PROFILE INFORMATION

Horizon Depth Site: Glenn Haffy Conservation Area Date: 80/08/07

Ahp  0 Location Code: 3001075 Parent Material: glacial till

Bf 20 UTM: 17T 583850.0 4865600.0 Vegetation: beech, maple, pine, oak

IC 40 Classification: Orthic Sombric Brunisol

IIC 60 Landform: kame moraine Comments: stoney at 50-60 cm.

Slope: nearly level

Sample No.	Horizon	Depth (cm)	Colour	Sand (%)	Silt (%)	Clay (%)	pH (H ₂ O)	pH (CaCl ₂)	Organic C (%)	Total Nitrogen (mg/g)	Extr. S (ug/g)	Extr. SO ₄ (ug/g)	Avail. P (ug/g)	Total P (ug/g)	Avail. Al (ug/g)
9604	Ahp	0-10	10YR 3/2	24	54	22	5.26	4.50	9.46	4.94		21.0		670	
9605	Ahp	0-10	10YR 3/2	24	50	25	5.16	4.39	9.10	5.58		20.0		710	
9602	Ahp	30	10YR 3/2	24	57	18	5.37	4.54	3.86	2.67		13.0		460	
9603	Ahp	30	10YR 3/2	26	55	19	5.47	4.63	4.48	2.79		14.0		480	
9600	Bf	33	10YR 4/3	34	53	13	6.08	4.96	1.83	1.27		6.8		430	
9601	Bf	33	10YR 4/3	32	55	13	6.01	5.09	1.90	1.11		7.5		400	
9598	IC	40	10YR 6/4	48	44	7	6.55	5.44	0.57	0.37		4.5		620	
9599	IC	40	10YR 6/4	53	36	11	6.61	5.56	0.37	0.21		4.1		620	
9596	IIC	60	10YR 6/3	51	36	13	7.15	6.09	0.25	0.27		4.2		580	
9597	IIC	60	10YR 6/3	53	26	20	7.03	6.27	0.29	0.38		5.9		630	

SOIL PROFILE INFORMATION (cont'd.)

Site: Glenn Haffy Conservation Area

Classification: Orthic Sombric Brunisol

Sample No.	Horizon	Exchangeable Cations (ug/g)				C.E.C. (m.e.) 100g	Pyrophosphate (%)			Dithionite (%)			CaCO ₃ (%)	Metals (ug/g)			
		Ca	Mg	K	Al		Fe	Al	Mn	Fe	Al	Mn		Zn	Cu	Ni	Pb
9604	Ahp	1950.0	196	73	37.00	11.86	0.43	0.23	0.0140	1.1	0.25	0.024		58	9.3	6.7	27.0
9605	Ahp	1998.0	204	73	48.00	12.28	0.43	0.23	0.0120	1.2	0.27	0.025		52	9.0	6.1	24.0
9602	Ahp	1374.0	144	27	45.00	8.54	0.55	0.29	0.0072	1.3	0.31	0.015		46	6.7	4.8	9.2
9603	Ahp	1418.0	144	27	37.00	8.68	0.54	0.29	0.0071	1.1	0.28	0.013		47	7.0	5.4	9.1
9600	Bf	892.0	81	9	8.85	5.21	0.42	0.34	0.0037	1.1	0.38	0.014		45	7.1	8.3	4.0
9601	Bf	927.0	93	9	9.10	5.51	0.45	0.33	0.0031	1.1	0.38	0.013	2	49	8.3	8.3	5.0
9598	IC	471.0	64	0	2.60	3.13	0.16	0.15	0.0051	0.78	0.20	0.024	2	23	6.5	6.8	2.2
9599	IC	294.4	27.1	6.7		1.71	0.10	0.09	0.0032	0.65	0.13	0.022	4	19	7.8	6.2	2.0
9596	IIC	665.8	62.0	11.5		3.86	0.09	0.04	0.0041	0.94	0.12	0.064	2	27	17.0	8.2	3.9
9597	IIC	1231.5	110.0	18.9		7.09	0.15	0.05	0.0039	1.6	0.19	0.150	1	43	35.0	15.0	6.4

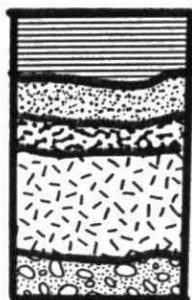
SOIL PROFILE INFORMATION

Horizon Depth

Site: Glenn Haffy Conservation Area

Date: 81/07/30

Ahp 0
Bf 20
Bm 40
IC
IIC 60



Location Code: 3001075

Parent Material: glacial till

UTM: 17T 583850.0 4865600.0

Vegetation: beech, maple, pine, oak

Classification: Orthic Sombric Brunisol

Landform: moraine

Comments: iron concretions 10YR 2/2 in C₁
very stoney in C₁ and C₂, resurvey

Slope: nearly level

Sample No.	Horizon	Depth (cm)	Colour	Sand (%)	Silt (%)	Clay (%)	pH (H ₂ O)	pH (CaCl ₂)	Organic C (%)	Total Nitrogen (mg/g)	Extr. S (ug/g)	Extr. SO ₄ (ug/g)	Avail. P (ug/g)	Total P (ug/g)	Avail. Al (ug/g)
17512	Ahp	0-20	10YR 2/1	25	52	23	4.8	3.8	4	5.3			11		5.50
17511	Ahp	0-20	10YR 2/1	25	56	19	5.1	4.3	2	5.1			10		3.80
17510	Bf	20-30	10YR 3/3	24	59	17	5.0	3.9	1	1.8			3		5.70
17509	Bf	20-30	10YR 3/3	25	57	17	4.8	4.1	2	2.2			3		6.40
17508	Bm	30-35	10YR 3/3	24	61	15	5.5	4.3	2	1.2			3		2.00
17507	Bm	30-35	10YR 3/3	27	58	14	5.7	4.7	2	1.1			3		1.40
17506	IC	35-60	10YR 6/4	39	50	10	5.7	4.8	1	0.5			3		0.93
17505	IC	35-60	10YR 6/4	41	50	9	5.7	4.9	1	0.4			3		0.78
17492	IIC	60	10YR 5/4	55	25	20	6.8	6.0	1	0.4			3		0.08
17491	IIC	60	10YR 5/4	56	24	20	6.7	6.1	1	0.5			3		0.08

SOIL PROFILE INFORMATION (cont'd.)

Site: Glenn Haffy Conservation Area

Classification: Orthic Sombric Brunisol

Sample No.	Horizon	Exchangeable Cations (ug/g)				C.E.C. (m.e.) 100g	Pyrophosphate (%)			Dithionite (%)			CaCO ₃ (%)	Zn	Metals (ug/g)		
		Ca	Mg	K	Al		Fe	Al	Mn	Fe	Al	Mn			Cu	Ni	Pb
17512	Ahp	1590	150	90	49	9.86											
17511	Ahp	1470	170	90	16	5.65											
17510	Bf	690	84	29	81	5.01											
17509	Bf	680	84	35	83	3.38											
17508	Bm	710	88	11	41	4.70											
17507	Bm	740	75	20	24	2.79											
17506	IC	390	33	5	13	2.33											
17505	IC	340	21	5	11	1.13											
17492	IIC	1240	97	38		7.06							1				
17491	IIC	1390	110	38		7.89							1				

SOIL PROFILE INFORMATION

Horizon Depth

Site: Heart Lake Conservation Area

Date: 80/-8/07

Ahp 0

Location Code: 3001076

Parent Material: clay/silt till

20

UTM: 17T 596950.0 4843850.0

Vegetation: beech, pine, maple

Bt 40

Classification: Brunisolic Gray Brown Luvisol

60

Landform: till plain

Comments: faint mottling at 70 cm.

Cg 80

Slope: gentle slope



Sample No.	Horizon	Depth (cm)	Colour	Sand (%)	Silt (%)	Clay (%)	pH (H ₂ O)	pH (CaCl ₂)	Organic C (%)	Total Nitrogen (mg/g)	Extr. S (ug/g)	Extr. SO ₄ (ug/g)	Avail. P (ug/g)	Total P (ug/g)	Avail. Al (ug/g)
9614	Ahp	0-10	10YR 3/2	27	36	36	7.01	6.43	4.59	3.70		13.0		560	
9615	Ahp	0-10	10YR 3/2	28	37	35	6.78	6.21	3.87	2.67		16.0		570	
9612	Ahp	25	10YR 4/3	33	38	29	7.21	6.55	3.70	1.69		10.0		510	
9613	Ahp	25	10YR 4/3	35	38	28	7.19	6.50	2.03	1.22		8.6		420	
9610	Bt	40	10YR 3/3	15	39	46	7.22	6.72	3.34	2.37		17.0		760	
9611	Bt	40	10YR 3/3	16	35	49	7.21	6.65	2.70	2.22		16.0		740	
9608	Cg	55	10YR 6/3	32	42	26	7.48	6.84	0.49	0.53		8.3		380	
9609	Cg	55	10YR 6/3	29	41	30	7.41	6.81	0.53	0.66		7.0		470	
9606	Cg	70	10YR 5/3	27	38	35	7.32	6.78	0.39	0.50		9.1		470	
9607	Cg	70	10YR 5/3	33	37	30	7.34	6.85	0.35	0.49		9.0		600	

SOIL PROFILE INFORMATION (cont'd.)

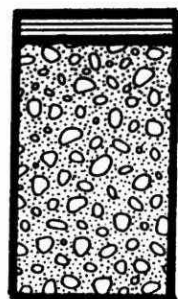
Site: Heart Lake Conservation Area

Classification: Brunisolic Gray Brown Luvisol

Sample No.	Horizon	Exchangeable Cations (ug/g)				C.E.C. (m.e.) 100g	Pyrophosphate (%)			Dithionite (%)			CaCO ₃ (%)	Metals (ug/g)			
		Ca	Mg	K	Al		Fe	Al	Mn	Fe	Al	Mn		Zn	Cu	Ni	Pb
9614	Ahp	3092	255.4	122.0		17.81	0.23	0.09	0.0590	1.1	0.16	0.079	2	93.0	23	20	25.0
9615	Ahp	2774	235.4	102.0		16.01	0.21	0.08	0.0470	1.1	0.16	0.080	2	8.4	21	18	22.0
9612	Ahp	2191	176.5	72.3		12.55	0.21	0.10	0.0250	1.1	0.17	0.087	2	73.0	20	17	9.8
9613	Ahp	1960	162.1	67.3		11.27	0.22	0.09	0.0230	1.1	0.16	0.087	2	67.0	19	16	9.3
9610	Bt	3377	328.2	86.5		19.75	0.36	0.16	0.0510	1.8	0.30	0.270	2	99.0	35	30	10.0
9611	Bt	3294	325.0	83.9		19.31	0.37	0.16	0.0520	1.9	0.32	0.300	2	100.0	34	29	11.0
9608	Cg	1697	158.3	53.6		9.89	0.14	0.05	0.0064	1.5	0.16	0.150	1	59.0	22	21	8.8
9609	Cg	1580	166.1	53.6		9.36	0.15	0.05	0.0063	1.5	0.16	0.110	1	65.0	26	21	8.9
9606	Cg	1660	142.6	56.1		9.98	0.01	0.03	0.0029	1.7	0.17	0.085	2	68.0	32	25	7.7
9607	Cg	1580	174.0	53.6		9.42	0.10	0.03	0.0047	1.6	0.17	0.100	1	65.0	33	26	7.9

SOIL PROFILE INFORMATION

Horizon	Depth	Site: Watershed B, Dorset	Date: 80/08/19
LFH	0	Location Code: 3001088	Parent Material: sandy colluvium/till
C	20	UTM: 17T 662350.0 5010350.0	Vegetation: maple
	40	Classification: Orthic Regosol	
	60	Landform: shallow till and rock ridge	Comments: exceedingly stoney (granitic)
	80	Slope: strong slopes	C meets all requirements for Bf



Sample No.	Horizon	Depth (cm)	Colour	Sand (%)	Silt (%)	Clay (%)	pH (H ₂ O)	pH (CaCl ₂)	Organic C (%)	Total Nitrogen (mg/g)	Extr. S (ug/g)	Extr. SO ₄ (ug/g)	Avail. P (ug/g)	Total P (ug/g)	Avail. Al (ug/g)
9731	LFH	0-5	7.5YR 3/2	54	39	7	5.62	4.61	3.76	2.37		9.6		650	
9732	LFH	0-5	7.5YR 3/2	56	36	8	5.90	5.00	3.92	2.00		8.7		580	
9729	C	20	7.5YR 4/4	59	36	6	5.88	4.77	2.39	1.38		5.4		700	
9730	C	20	7.5YR 4/4	58	38	4	5.78	4.80	2.47	1.52		6.2		890	
9727	C	40	7.5YR 4/4	60	36	4	5.66	4.74	1.84	1.27		5.5		1340	
9728	C	40	7.5YR 4/4	56	38	6	5.75	4.74	1.89	1.33		5.7		650	
9725	C	65	7.5YR 4/4	48	45	7	5.66	4.67	1.86	1.20		6.5		3700	
9726	C	65	7.5YR 4/4	53	42	4	5.68	4.67	1.74	1.10		4.3		2430	

SOIL PROFILE INFORMATION (cont'd.)

Site: Watershed B, Dorset

Classification: Orthic Regosol

Sample No.	Horizon	Exchangeable Cations (ug/g)				C.E.C. (m.e.) 100g	Pyrophosphate (%)			Dithionite (%)			CaCO ₃ (%)	Metals (ug/g)			
		Ca	Mg	K	Al		Fe	Al	Mn	Fe	Al	Mn		Zn	Cu	Ni	Pb
9731	LFH	503	39	43	33	3.26	0.44	0.38	0.0260	1.7	0.79	0.042		300	24	15	6.8
9732	LFH	1077	66	49	8	6.11	0.40	0.35	0.0450	1.7	0.68	0.059		300	16	16	7.5
9729	C	256	17	18	26	1.72	0.40	0.47	0.0061	1.6	0.81	0.020		260	26	18	5.3
9730	C	294	17	18	22	1.87	0.38	0.47	0.0032	1.5	0.87	0.011		210	21	17	4.9
9727	C	182	12	18	33	1.39	0.40	0.34	0.0036	1.4	0.71	0.016		230	20	14	4.5
9728	C	213	12	18	25	1.47	0.33	0.32	0.0040	1.4	0.73	0.017		230	18	15	3.5
9725	C	169	17	18	35	1.38	0.49	0.40	0.0026	1.6	0.78	0.012		190	120	13	4.6
9726	C	169	12	18	36	1.36	0.44	0.39	0.0023	1.5	0.75	0.011		210	24	15	5.7

SOIL PROFILE INFORMATION

Horizon	Depth	Site: Watershed B The Narrows Rd., Dorset	Date: 81/08/06
Ah	0	Location Code: 3001088	Parent Material: sandy till
	20	UTM: 17T 662350.0 5010350.0	Vegetation: maple
IC ₁	60	Classification: Orthic Regosol	
IIC ₂	80	Landform: shallow till and rock ridges	Comments: exceedingly stoney (granite rocks) resurvey
		Slope: class 6, stoney slope	



Sample No.	Horizon	Depth (cm)	Colour	Sand (%)	Silt (%)	Clay (%)	pH (H ₂ O)	pH (CaCl ₂)	Organic C (%)	Total Nitrogen (mg/g)	Extr. S (ug/g)	Extr. SO ₄ (ug/g)	Avail. P (ug/g)	Total P (ug/g)	Avail. Al (ug/g)
17530	Ah	0-5	10YR 3/2				4.6	4.0							5.9
17529	Ah	0-5	10YR 3/2				5.1	4.3							3.4
17528	IC	5-20	10YR 5/4				5.4	4.5							2.5
17527	IC	5-20	10YR 5/4				5.6	4.7							1.6
17526	IC	20-40	10YR 5/4				5.5	4.6							3.1
17525	IC	20-40	10YR 5/4				5.5	4.6							2.6
17524	IIC	40-65	10YR 6/6				5.6	4.7							2.4
17523	IIC	40-65	10YR 6/6				5.5	4.7							2.9

SOIL PROFILE INFORMATION (cont'd.)

Site: Watershed B The Narrows Rd., Dorset

Classification: Orthic Regosol

Sample No.	Horizon	Exchangeable Cations (ug/g)				C.E.C. (m.e.) 100g	Pyrophosphate (%)			Dithionite (%)			CaCO ₃ (%)	Metals (ug/g)			
		Ca	Mg	K	Al		Fe	Al	Mn	Fe	Al	Mn		Zn	Cu	Ni	Pb
17530	Ah	2930	300	370	48	18.42											
17529	Ah	2080	210	220	21	8.16											
17528	IC	240	13	19	34	1.68											
17527	IC	310	15	25	30	1.31											
17526	IC	230	11	22	35	1.63											
17525	IC	240	15	14	46	1.26											
17524	IIC	270	18	16	26	1.82											
17523	IIC	220	17	16	34	1.11											

SOIL PROFILE INFORMATION

Horizon Depth

Site: Paint Lake, Dorset

Date: 80/08/19

Ahp 0

Location Code: 3001089

Parent Material: sandy till

Ae 20

UTM: 17T 662250.0 5009750.0

Vegetation: grass, pine

Bf 40

Classification: Sombric Humo-Ferric Podzol

Landform: shallow till and rock ridge

Comments: discontinuous, irregular Ae
faint mottling in Cg (10YR 5/8)

Cgj 80

Slope: level

Sample No.	Horizon	Depth (cm)	Colour	Sand (%)	Silt (%)	Clay (%)	pH (H ₂ O)	pH (CaCl ₂)	Organic C (%)	Total Nitrogen (mg/g)	Extr. S (ug/g)	Extr. SO ₄ (ug/g)	Avail. P (ug/g)	Total P (ug/g)	Avail. Al (ug/g)
9742	Ahp	0-20	10YR 3/3	73	22	5	5.96	4.84	2.13	1.18		6.9		290	
9743	Ahp	0-20	10YR 3/3	72	22	5	6.04	4.91	1.93	1.15		6.7		250	
9741	Ae	20-30	10YR 6/2	78	18	4	6.46	5.12	0.60	0.34		2.4		90	
9739	Bf ₁	30-40	5YR 3/3	84	13	3	6.21	5.01	2.18	0.94		7.3		220	
9740	Bf ₁	30-40	5YR 3/3	82	15	4	6.10	4.92	2.14	1.07		3.0		260	
9737	Bf ₂	50	10YR 5/8	85	15	0	6.04	4.87	0.98	0.52		2.1		500	
9738	Bf ₂	50	10YR 5/8	84	11	5	5.83	4.96	0.88	0.47		2.4		550	
9735	Bf ₃	70	10YR 5/6	82	16	2	5.97	4.80	1.10	0.36		2.4		480	
9736	Bf ₃	70	10YR 5/6	72	25	3	5.90	4.80	0.97	0.51		2.7		570	
9733	Cgj	85	2.5Y 4/2	46	51	3	6.04	4.91	0.51	0.22		2.1		750	
9734	Cgj	85	2.5Y 4/2	38	58	4	5.77	4.91	0.27	0.18		1.3		870	

SOIL PROFILE INFORMATION (cont'd.)

Site: Paint Lake, Dorset

Classification: Sombric Humo-Ferric Podzol

Sample No.	Horizon	Exchangeable Cations (ug/g)				C.E.C. (m.e.) 100g	Pyrophosphate (%)			Dithionite (%)			CaCO ₃ (%)	Metals (ug/g)			
		Ca	Mg	K	Al		Fe	Al	Mn	Fe	Al	Mn		Zn	Cu	Ni	Pb
9742	Ahp	384	12.0	12	7	2.12	0.39	0.25	0.0036	1.00	0.45	0.007		26.0	11.0	2.60	3.8
9743	Ahp	466	9.0	32	17	2.20	0.37	0.21	0.0035	0.97	0.44	0.006		27.0	8.7	2.80	2.6
9741	Ae	307	12.0	6	3	1.68	0.11	0.07	0.0007	0.31	0.10	0.002	2	6.8	6.5	0.88	1.3
9739	Bf ₁	371	7.0	6	9	2.02	0.46	0.50	0.0004	0.77	0.82	0.002		13.0	11.0	1.70	2.3
9740	Bf ₁	371	7.0	6	12	2.05	0.45	0.48	0.0004	0.79	0.81	0.001		18.0	12.0	1.50	2.3
9737	Bf ₂	133	2.0	6	13	0.82	0.23	0.35	0.0006	0.81	0.57	0.003		35.0	12.0	7.00	1.3
9738	Bf ₂	169	2.0	6	10	0.98	0.22	0.30	0.0008	0.76	0.53	0.003		37.0	10.0	7.40	1.4
9735	Bf ₃	96	5.0	6	16	0.69	0.26	0.32	0.0006	1.10	0.65	0.004		39.0	13.0	9.20	1.5
9736	Bf ₃	120	5.0	6	18	0.83	0.25	0.25	0.0005	0.76	0.52	0.003		27.0	12.0	5.50	1.3
9733	Cgj	72	2.2	18	11	0.54	0.20	0.20	0.0006	0.67	0.25	0.001		33.0	14.0	8.70	1.4
9734	Cgj	60	2.0	24	15	0.53	0.08	0.12	0.0005	0.55	0.15	0.004		34.0	15.0	8.50	1.5

SOIL PROFILE INFORMATION

Horizon	Depth	Site: Plastic Lake, Dorset	Date: 80/08/19
Ah	0	Location Code: 3001090	Parent Material: sandy till
Ae	20	UTM: 17T 670700.0 5004950.0	Vegetation: maple, beech, pine
Bf	40	Classification: Orthic Humo-Ferric Podzol	
Bfj/C	60	Landform: shallow till and rock ridges	Comments: depth to granitic bedrock 55 cm exceedingly stoney
		Slope: moderate slope	



Sample No.	Horizon	Depth (cm)	Colour	Sand (%)	Silt (%)	Clay (%)	pH (H ₂ O)	pH (CaCl ₂)	Organic C (%)	Total Nitrogen (mg/g)	Extr. S (ug/g)	Extr. SO ₄ (ug/g)	Avail. P (ug/g)	Total P (ug/g)	Avail. Al (ug/g)
9751	Ah	0-10	5YR 3/2	57	31	13	4.52	3.61	10.9	4.17		22.0		290	
9752	Ah	0-10	5YR 3/2	60	29	12	4.74	3.79	6.45	2.94		18.0		290	
9750	Ae	10-20	5YR 7/1	66	28	5	5.03	4.14	1.40	0.53		5.0		110	
9748	Bf ₁	25	10YR 4/3	73	23	4	5.31	4.64	2.82	1.68		6.0		390	
9749	Bf ₁	25	10YR 4/3	70	32	2	5.29	4.62	3.17	1.54		6.9		360	
9746	Bf ₂	30	5YR 4/4	70	26	3	5.48	4.72	2.18	1.13		9.4		360	
9747	Bf ₂	30	5YR 4/4	70	27	3	5.40	4.70	2.34	1.34		6.5		400	
9744	Bfj/C	50	5YR 4/4	80	17	3	5.43	4.73	1.41	0.81		7.0		410	
9745	Bf/C	50	5YR 4/4	74	24	3	5.36	4.73	1.93	0.91		6.5		320	

SOIL PROFILE INFORMATION (cont'd.)

Site: Plastic Lake, Dorset

Classification: Orthic Humo-Ferric Podzol

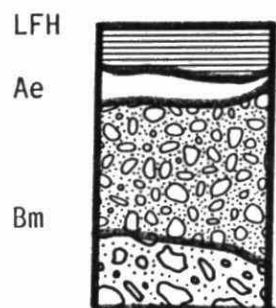
Sample No.	Horizon	Exchangeable Cations (ug/g)				C.E.C. (m.e.) 100g	Pyrophosphate (%)			Dithionite (%)			CaCO ₃ (%)	Metals (ug/g)			
		Ca	Mg	K	Al		Fe	Al	Mn	Fe	Al	Mn		Zn	Cu	Ni	Pb
9751	Ah	1360	137.0	108	86.0	9.03	0.21	0.07	0.0081	0.56	0.11	0.008		56	24.0	5.7	47.0
9752	Ah	865	91.0	108	155.0	6.87	0.25	0.11	0.0047	0.76	0.18	0.006		42	27.0	4.8	29.0
9750	Ae	211	23.0	22	108.0	2.37	0.22	0.07	0.0004	0.62	0.11	0.001		15	7.0	1.6	4.2
9748	Bf ₁	88	9.0	22	25.0	0.81	0.33	0.69	0.0008	1.90	1.30	0.004		53	8.8	8.1	2.4
9749	Bf ₁	88	13.0	27	38.0	1.00	0.49	0.92	0.0014	1.80	1.40	0.004		49	12.0	7.3	3.1
9746	Bf ₂	99	9.0	16	20.5	0.80	0.28	0.62	0.0005	1.50	0.96	0.003		46	12.0	9.8	2.1
9747	Bf ₂	99	9.0	22	19.5	0.80	0.23	0.58	0.0004	1.60	1.10	0.003		45	12.0	8.7	2.2
9744	Bfj/C	139	4.5	11	16.0	0.92	0.15	0.23	0.0004	0.83	0.59	0.002		35	16.0	8.7	1.4
9745	Bf/C	79	4.5	11	19.5	0.65	0.20	0.51	0.0004	1.20	0.83	0.002		41	14.0	9.2	2.2

SOIL PROFILE INFORMATION

Horizon Depth

Site: Plastic Lake

Date: 81/07/21



LFH 0
Ae 20
Bm 40
60

Location Code: 3001090

Parent Material: sandy till

UTM: 17T 670700.0 5004950.0

Vegetation: maple, beech, pine

Classification: Orthic Humo-Ferric Podzol

Landform: shallow till and rock ridges

Comments: depth to granitic bedrock 55 cm.
exceeding stoney at 30-50 cm.
resurvey

Slope: moderate slope

Sample No.	Horizon	Depth (cm)	Colour	Sand (%)	Silt (%)	Clay (%)	pH (H ₂ O)	pH (CaCl ₂)	Organic C (%)	Total Nitrogen (mg/g)	Extr. S (ug/g)	Extr. SO ₄ (ug/g)	Avail. P (ug/g)	Total P (ug/g)	Avail. Al (ug/g)
17489	LFH	0-10	10YR 2/1	55	22	22	4.2	3.8	14	11.2			26		11.0
17488	LFH	0-10	10YR 2/1	64	18	18	4.1	3.6	10	11.4			25		31.0
17490	Ae	10-20	10YR 6/1	67	26	7	4.2	3.5	2	1.3			3		17.0
17487	Bm	25	10YR 3/6	76	21	3	5.2	4.4	2	1.4			3		4.9
17486	Bm	25	10YR 3/6	79	18	3	5.0	4.3	2	1.2			3		6.3
17485	Bm	30	10YR 3/6	80	18	2	5.1	4.5	2	1.1			3		3.3
17484	Bm	30	10YR 3/6	80	18	2	5.0	4.4	2	0.9			3		3.8
17483	C	50	10YR 3/6	81	18	2	5.1	4.5	2	0.9			3		2.8
17482	C	50	10YR 3/6	84	15	1	5.1	4.5	2	0.9			3		3.8

SOIL PROFILE INFORMATION (cont'd.)

Site: Plastic Lake

Classification: Orthic Humo-Ferric Podzol

Sample No.	Horizon	Exchangeable Cations (ug/g)				C.E.C. (m.e.) 100g	Pyrophosphate (%)			Dithionite (%)			CaCO ₃ (%)	Metals (ug/g)			
		Ca	Mg	K	Al		Fe	Al	Mn	Fe	Al	Mn		Zn	Cu	Ni	Pb
17489	LFH	2020	270	460	46	13.85											
17488	LFH	1940	240	530	83	13.76											
17490	Ae	320	39	65	100	3.10											
17487	Bm	170	12	26	39	1.38											
17486	Bm	170	18	32	49	1.58											
17485	Bm	110	6	14	31	0.95											
17484	Bm	120	9	23	38	1.10											
17483	C	87	6	17	31	0.83											
17482	C	56	3	17	29	0.64											

SOIL PROFILE INFORMATION

Horizon	Depth	Site: Arrowhead Provincial Park	Date: 80/08/20
Oh	0	Location Code: 3001091	Parent Material: glacial/fluviail sand
Ae	20	UTM: 17T 640000.0 5028000.0	Vegetation: pine, spruce, maple
Bf	40	Classification: Sombric Humo-Ferric Podzol	Comments:
	60	Landform: sand plain	
C	80	Slope: very gentle slopes	



Sample No.	Horizon	Depth (cm)	Colour	Sand (%)	Silt (%)	Clay (%)	pH (H ₂ O)	pH (CaCl ₂)	Organic C (%)	Total Nitrogen (mg/g)	Extr. S (ug/g)	Extr. SO ₄ (ug/g)	Avail. P (ug/g)	Total P (ug/g)	Avail. Al (ug/g)
9759	Oh	0-20	10YR2.5/1	55	21	23	4.32	3.80	26.00	10.55				440	
9760	Oh	0-20	10YR2.5/1	59	22	19	4.00	3.42	25.00	9.09		57.0		360	
9757	Ae	25	5YR 6/1	84	14	2	4.63	3.72	0.56	0.26		3.1		70	
9758	Ae	25	5YR 6/1	87	9	4	4.61	3.68	0.41	0.45		2.0		50	
9755	Bf	40	2.5YR 2.5/4	93	4	3	5.20	4.25	2.07	1.38		4.2		480	
9756	Bf	40	2.5YR 2.5/4	89	7	4	5.23	4.25	2.15	1.17		2.8		380	
9753	C	65	7.5YR 4/4	96	3	1	5.51	4.54	0.40	0.23		1.4		500	
9754	C	65	7.5YR 4/4	94	2	4	5.53	4.62	0.56	0.24		2.0		360	

SOIL PROFILE INFORMATION (cont'd.)

Site: Arrowhead Provincial Park

Classification: Sombric Humo-Ferric Podzol

Sample No.	Horizon	Exchangeable Cations (ug/g)				C.E.C. (m.e.) 100g	Pyrophosphate (%)			Dithionite (%)			CaCO ₃ (%)	Metals (ug/g)			
		Ca	Mg	K	Al		Fe	Al	Mn	Fe	Al	Mn		Zn	Cu	Ni	Pb
9759	Ah	3763	360	254	11	5.50	0.07	0.05	0.0130	0.25	0.055	0.0120		58.0	36.0	11.00	74.0
9760	Ah	298	233	54	531	8.79	0.05	0.04	0.0073	0.20	0.049	0.0070		53.0	30.0	13.00	88.0
9757	Ae	67	10	9	27	0.71	0.03	0.01	0.0004	0.18	0.014	0.0009		4.9	5.4	1.00	1.4
9758	Ae	67	10	14	33	1.36	0.05	0.02	0.0004	0.23	0.023	0.0020		7.2	7.8	0.88	1.3
9755	Bf	180	13	5	125	2.27	0.69	0.59	0.0007	1.00	0.570	0.0030		23.0	8.3	2.60	1.3
9756	Bf	170	13	11	108	2.07	0.90	0.97	0.0007	1.20	0.570	0.0030		23.0	9.9	3.10	1.2
9753	C	243	9	11	22	7.19	0.05	0.13	0.0004	0.20	0.200	0.0010		19.0	12.0	6.20	1.4
9754	C	59	5	5	21	0.55	0.05	0.13	0.0004	0.24	0.290	0.0030		16.0	8.7	5.60	1.5

SOIL PROFILE INFORMATION

Horizon Depth

Ah

0

Bm

50

C

100



Site: Six Mile Lake Provincial Park

Date: 80/08/21

Location Code: 3001093

Parent Material: sandy till

UTM: 17T 598750.0 4971150.0

Vegetation: pine, ferns, shrubs

Classification: Orthic Sombric Brunisol

Landform: shallow till and rock ridges

Comments: slightly stoney in B and C horizons evidence of past disturbance

Slope: nearly level

Sample No.	Horizon	Depth (cm)	Colour	Sand (%)	Silt (%)	Clay (%)	pH (H ₂ O)	pH (CaCl ₂)	Organic C (%)	Total Nitrogen (mg/g)	Extr. S (ug/g)	Extr. SO ₄ (ug/g)	Avail. P (ug/g)	Total P (ug/g)	Avail. Al (ug/g)
9781	Ah	0-20	10YR 3/2	62	24	14	5.85	5.05	7.00	2.35		10.0		600	
9782	Ah	0-20	10YR 3/2	63	24	13	5.76	4.92	5.88	2.06		10.0		550	
9779	Bm	40	10YR 4/4	59	32	9	5.82	4.77	1.50	0.62		6.7		440	
9780	Bm	40	10YR 4/4	61	26	14	5.83	4.78	1.09	0.70		6.0		380	
9777	Bfj	70	10YR 5/6	66	24	10	5.68	4.69	1.57	0.56		7.1		470	
9778	Bfj	70	10YR 5/6	50	34	16	5.79	4.78	1.61	0.59		7.0		470	
9775	Bm	90	10YR 5/6	98	15	8	6.12	5.06	0.25	0.30		4.4		640	
9776	Bm	90	10YR 5/6	80	15	5	6.00	4.95	0.57	0.24		5.2		580	
9773	C	110	10YR 6/3	86	11	2	6.07	5.16	0.44	0.21		4.5		460	
9774	C	110	10YR 6/3	91	7	3	6.24	5.23	0.25	0.17		0.5		560	

SOIL PROFILE INFORMATION (cont'd.)

Site: Six Mile Lake Provincial Park

Classification: Orthic Sombric Brunisol

Sample No.	Horizon	Exchangeable Cations (ug/g)				C.E.C. (m.e.) 100g	Pyrophosphate (%)			Dithionite (%)			CaCO ₃ (%)	Metals (ug/g)			
		Ca	Mg	K	Al		Fe	Al	Mn	Fe	Al	Mn		Zn	Cu	Ni	Pb
9781	Ah	1359	156.0	175	18.0	8.71	0.24	0.31	0.480	0.83	0.37	0.0410	2	91	13.0	13.0	26.0
9782	Ah	1418	128.0	141	16.0	8.72	0.22	0.30	0.0320	0.74	0.32	0.0310		82	13.0	12.0	20.0
9779	Bm	276	41.0	43	41.0	2.23	0.08	0.10	0.0006	0.39	0.19	0.0010		29	14.0	5.7	1.2
9780	Bm	950	41.0	43	38.0	5.57	0.09	0.14	0.0005	0.38	0.17	0.0020		41	10.0	9.7	1.3
9777	Bfj	222	36.0	60	64.0	2.19	0.18	0.24	0.0009	0.65	0.29	0.0020		44	14.0	12.0	1.3
9778	Bfj	276	36.0	43	53.0	2.31	0.18	0.24	0.0011	0.74	0.33	0.0030		47	12.0	12.0	1.2
9775	Bm	109	13.0	49	15.0	0.92	0.11	0.18	0.0004	0.51	0.26	0.0030	2	39	14.0	13.0	1.8
9776	Bm	243	18.0	49	19.0	1.67	0.09	0.15	0.0004	0.46	0.23	0.0010		33	19.0	11.0	1.2
9773	C	99	4.5	19	5.0	0.63	0.04	0.13	0.0004	0.16	0.16	0.0008	2	15	7.7	5.5	1.3
9774	C	69	4.5	11	4.5	0.46	0.02	0.12	0.0004	0.12	0.14	0.0008	2	13	6.7	4.9	1.3

SOIL PROFILE INFORMATION

Horizon Depth

Site: MNR York Region Forest, North Tract-Ballantrae

Date: 80/10/30

Location Code: 3001121

Parent Material: sandy outwash

UTM: 17T 635300.0 4875850.0

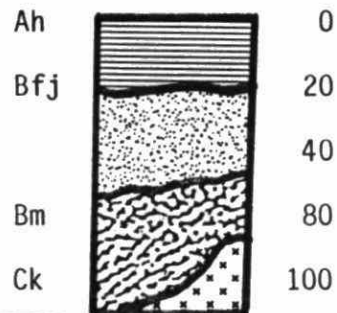
Vegetation: red pine

Classification: Orthic Melanic Brunisol

Landform: kame moraine

Comments: reforested area

Slope: very gentle slopes



Sample No.	Horizon	Depth (cm)	Colour	Sand (%)	Silt (%)	Clay (%)	pH (H ₂ O)	pH (CaCl ₂)	Organic C (%)	Total Nitrogen (mg/g)	Extr. S (ug/g)	Extr. SO ₄ (ug/g)	Avail. P (ug/g)	Total P (ug/g)	Avail. Al (ug/g)
9991	Ah	0-20	10YR2.5/1	88	8	4	4.86	3.98	2.15	1.06		13.0		450	
9992	Ah	0-20	10YR2.5/1	83	5	12	5.09	4.21	3.25	1.42		18.0		470	
9989	Bfj	20-60	7.5YR 5/6	91	9	0	6.30	5.38	0.63	0.40		7.3		540	
9990	Bm	20-60	7.5YR 5/6	92	4	4	5.97	5.09	0.63	0.61		7.2		560	
9987	Bm ₂	70	7.5YR 5/6	95	4	1	6.64	5.66	0.52	0.47		7.9		710	
9988	Bm ₂	70	7.5YR 5/6	96	0	4	6.73	5.86	0.37	0.27		6.1		450	
9985	Bm ₃	80	10YR 5/6	94	2	4	6.76	5.75	0.36	0.32		7.1		730	
9986	Bm ₃	80	10YR 5/6	96	3	0	6.76	5.91	0.60	0.35		6.5		610	
9983	Ck	90	10YR 6/3	100	0	0	8.62	7.82	0.07	0.19		3.0		460	
9984	Ck	90	10YR 6/3	100	0	0	8.40	7.73	0.05	0.13		4.4		360	

SOIL PROFILE INFORMATION (cont'd.)

Site: MNR York Region Forest, North Tract - Ballantrae

Classification: Orthic Melanic Brunisol

Sample No.	Horizon	Exchangeable Cations (ug/g)				C.E.C. (m.e.) 100g	Pyrophosphate (%)			Dithionite (%)			CaCO ₃ (%)	Metals (ug/g)			
		Ca	Mg	K	Al		Fe	Al	Mn	Fe	Al	Mn		Zn	Cu	Ni	Pb
9991	Ah	661	27.0	32.0	73	3.60	0.14	0.09	0.0100	0.42	0.10	0.013		38	29	36	16.0
9992	Ah	617	36.0	32.0	43	3.88	0.11	0.09	0.0160	0.38	0.09	0.017		34	11	5	18.0
9989	Bfj	540	32.0	11.0	4	3.02	0.24	0.14	0.0072	0.47	0.13	0.011	3	27	27	19	2.6
9990	Bm	552	27.0	16.0	6	3.08	0.15	0.08	0.0042	0.46	0.12	0.012	1	24	32	28	1.3
9987	Bm ₂	508	21.0	7.1		2.73	0.18	0.17	0.0078	0.60	0.22	0.016	2	30	34	26	8.9
9988	Bm ₂	508	18.7	4.3		2.70	0.16	0.12	0.0086	0.51	0.16	0.014	2	29	39	25	3.7
9985	Bm ₃	414	14.0	10.0		2.20	0.10	0.15	0.0098	0.42	0.18	0.017	2	18	15	62	4.7
9986	Bm ₃	492	14.0	7.1		2.59	0.13	0.19	0.0110	0.55	0.24	0.021	2	24	33	39	8.3
9983	Ck	289	4.6	7.1		1.51	0.01	0.01	0.0017	0.24	0.04	0.010	35	15	15	53	2.5
9984	Ck	328	4.6	7.1		1.70	0.02	0.01	0.0018	0.25	0.04	0.011	32	14	10	63	4.6

SOIL PROFILE INFORMATION

Horizon Depth

Site: Greenwood Conservation Area

Date: 80/07/29

Ahp 0

Location Code: 3001122

Parent Material: beach sand

Bmk 30

UTM: 17T 655600.0 4862350.0

Vegetation: pine, sumac, maple, grass

Bm 60

Classification: Orthic Melanic Brunisol

Landform: sand plain/beach

Comments: large rounded granitic boulders throughout pit

Ck 80

Slope: moderate slope



Sample No.	Horizon	Depth (cm)	Colour	Sand (%)	Silt (%)	Clay (%)	pH (H ₂ O)	pH (CaCl ₂)	Organic C (%)	Total Nitrogen (mg/g)	Extr. S (ug/g)	Extr. SO ₄ (ug/g)	Avail. P (ug/g)	Total P (ug/g)	Avail. Al (ug/g)
9576	Ahpk	0-10	10YR 3/2	74	11	15	7.99	7.36	1.38	0.79		6.6		770	
9577	Ahpk	0-10	10YR 3/2	70	12	18	7.99	7.37	1.76	0.92		7.6		830	
9574	Ahp	30	10YR 3/2	73	13	14	7.74	7.11	1.01	0.61		6.0		830	
9575	Ahp	30	10YR 3/2	71	14	14	7.79	7.21	1.33	0.80		6.7		780	
9572	Bmk	40	7.5YR 4/4	79	11	10	7.73	7.12	0.51	0.29		5.9		670	
9573	Bmk	40	7.5YR 4/4	76	13	11	7.76	7.13	0.59	0.41		5.5		740	
9570	Bm	60	10YR 5/6	89	4	7	8.12	7.44	0.33	0.10		3.2		690	
9571	Bm	60	10YR 5/6	88	2	11	7.95	7.16	0.15	0.11		3.6		790	
9568	Ck	80	7.5YR 6/2	90	1	9	8.89	7.68	0.19	0.09		2.1		280	
9569	Ck	80	7.5YR 6/2	90	0	10	8.92	7.83	0.09	0.11		2.2		240	

SOIL PROFILE INFORMATION (cont'd.)

Site: Greenwood Conservation Area

Classification: Orthic Melanic Brunisol

Sample No.	Horizon	Exchangeable Cations (ug/g)				C.E.C. (m.e.) 100g	Pyrophosphate (%)			Dithionite (%)			CaCO ₃ (%)	Metals (ug/g)			
		Ca	Mg	K	Al		Fe	Al	Mn	Fe	Al	Mn		Zn	Cu	Ni	Pb
9576	Ahpk	1375	17.0	40		7.12	0.06	0.05	0.0100	0.76	0.13	0.048		54.0	6.9	34.0	13.0
9577	Ahpk	1324	17.0	40		6.86	0.07	0.06	0.0110	1.00	0.18	0.062	5	66.0	8.2	9.0	16.0
9574	Ahp	1137	14.0	35		5.88	0.10	0.08	0.0079	0.83	0.16	0.055	4	56.0	6.5	6.9	8.7
9575	Ahp	1324	17.0	40		6.86	0.06	0.06	0.0110	0.95	0.17	0.065	4	59.0	6.7	6.9	10.0
9572	Bmk	948	14.0	25		4.92	0.08	0.07	0.0050	0.79	0.16	0.034	7	44.0	6.8	5.6	6.1
9573	Bmk	1001	14.0	30		5.19	0.07	0.06	0.0037	0.84	0.17	0.590	5	54.0	6.7	7.6	6.5
9570	Bm	467	6.7	15		2.43	0.02	0.01	0.0030	0.31	0.05	0.017	2	15.0	3.8	4.8	3.4
9571	Bm	434	8.7	15		2.28	0.02	0.01	0.0015	0.37	0.06	0.019	3	16.0	3.6	5.7	2.6
9568	Ck	434	1.0	5		2.19	0.01	0.01	0.0009	0.22	0.04	0.011	25	11.0	5.9	140.0	3.1
9569	Ck	434	2.9	7		2.21	0.01	0.01	0.0010	0.19	0.03	0.010	25	9.4	4.6	100.0	1.7

SOIL PROFILE INFORMATION

Horizon Depth

Site: Plastic Lake

Date: 81/05/14

LFH 0

Location Code: 3001124

Parent Material: granitic glacial till

Ah

UTM: 17T 640750.0 5004750.0

Vegetation: oak

Ae 20

Classification: Humo-Ferric Podzol

Bf

Landform: shallow till and rock ridges

Comments: north of 1981 biogeochemical site

Bhf 40

Slope: level



Sample No.	Horizon	Depth (cm)	Colour	Sand (%)	Silt (%)	Clay (%)	pH (H ₂ O)	pH (CaCl ₂)	Organic C (%)	Total Nitrogen (mg/g)	Extr. S (ug/g)	Extr. SO ₄ (ug/g)	Avail. P (ug/g)	Total P (ug/g)	Avail. Al (ug/g)
17161	Ah	5-10	10YR 2/1	47	28	25	4.1	3.6	7	5.3					
17160	Ah	5-10	10YR 2/1	57	25	18	3.9	3.4	4	2.5			9		21.0
17159	Ae	10-12	5YR 4/2	59	29	11	4.1	3.5	2	0.7			23		31.0
17158	Bf	20	10YR 3/6	57	32	11	4.9	4.5	5	2.2			5		8.9
17157	Bf	20	10YR 3/6	51	40	10	5.0	4.5	4	2.2			3		7.8
17156	Bhf	30	10YR 3/6	55	31	14	4.8	4.2	6	2.5			23		14.0
17155	Bhf	30	10YR 3/6	47	40	13	4.8	4.2	6	3.0			27		16.0

SOIL PROFILE INFORMATION (cont'd.)

Site: Plastic Lake

Classification: Humo-Ferric Podzol

Sample No.	Horizon	Exchangeable Cations (ug/g)				C.E.C. (m.e.) 100g	Pyrophosphate (%)			Dithionite (%)			CaCO ₃ (%)	Metals (ug/g)			
		Ca	Mg	K	Al		Fe	Al	Mn	Fe	Al	Mn		Zn	Cu	Ni	Pb
17161	Ah	1000	69	180	240	8.41	0.40	0.22	0.0227	0.99	0.180	0.0295		49	7.6	2.9	34.0
17160	Ah	360	37	53	170	3.96	0.18	0.12	0.0077	0.58	0.096	0.0088		27	7.1	2.3	24.0
17159	Ae	39	8	28	190	2.11	0.30	0.19	0.0039	0.90	0.130	0.0059		22	4.6	2.0	7.6
17158	Bf	30	5	13	51	0.74	0.44	0.85	0.0019	1.60	1.300	0.0066		80	6.1	6.0	3.0
17157	Bf	20	3	15	47	0.63	0.42	0.83	0.0018	1.60	1.200	0.0056		80	6.6	5.9	3.0
17156	Bhf	49	7	37	98	1.37	0.58	0.95	0.0065	1.50	1.300	0.0110		72	8.6	6.3	3.0
17155	Bhf	59	5	42	99	1.42	0.80	0.86	0.0098	1.60	1.300	0.0140		87	6.6	5.6	3.0

SOIL PROFILE INFORMATION

Horizon Depth

Site: Sibbald Point Provincial Park

Date: 81/05/21

Ah



0

Location Code: 3001125

Parent Material: lacustrine sands

Bm

20

UTM: 17T 634250.0 4908950.0

Vegetation: sugar maple, white birch, beech,
ironwood

Classification: Orthic Melanic Brunisol

Landform: sand plain/beach

Comments: large erratics at site
stones at 40 cm+

Bm/C

40

Slope: level

Sample No.	Horizon	Depth (cm)	Colour	Sand (%)	Silt (%)	Clay (%)	pH (H ₂ O)	pH (CaCl ₂)	Organic C (%)	Total Nitrogen (mg/g)	Extr. S (ug/g)	Extr. SO ₄ (ug/g)	Avail. P (ug/g)	Total P (ug/g)	Avail. Al (ug/g)
17186	Ah	0-20	10YR 2/2	69	13	17	6.2	5.5	1	1.4			3		0.40
17185	Bm	20-40	10YR 4/4	70	11	18	6.9	6.1	2	0.9			3		0.08
17184	Bm	20-40	10YR 4/4	71	14	15	6.7	6.1	2	0.7			3		0.08
17183	Bm/C	40-50	10YR 4/4	66	16	18	7.1	6.4	2	0.6			3		0.11
17182	Bm/C	40-50	10YR 4/4	72	11	17	7.3	6.5	2	0.5			3		0.08

SOIL PROFILE INFORMATION (cont'd.)

Site: Sibbald Point Provincial Park

Classification: Orthic Melanic Brunisol

Sample No.	Horizon	Exchangeable Cations (ug/g)				C.E.C. (m.e.) 100g	Pyrophosphate (%)			Dithionite (%)			CaCO3 (%)	Metals (ug/g)			
		Ca	Mg	K	Al		Fe	Al	Mn	Fe	Al	Mn		Zn	Cu	Ni	Pb
17186	Ah	1620	60	54	3	8.76	0.28	0.18	0.0116	1.41	0.33	0.0206	3	65	8.6	10.0	8.2
17185	Bm	1330	33	20		6.95	0.24	0.18	0.0078	1.56	0.37	0.0218	3	48	7.1	9.0	3.5
17184	Bm	1350	36	20		7.09	0.24	0.18	0.0069	1.69	0.36	0.0198	3	54	7.1	9.5	6.8
17183	Bm/C	1460	40	22		7.67	0.28	0.22	0.0112	1.65	0.31	0.0300	1	54	10.0	10.0	11.0
17182	Bm/C	1590	39	22		8.32	0.21	0.17	0.0112	1.64	0.30	0.0326	1	60	10.0	11.0	6.9

SOIL PROFILE INFORMATION

Horizon Depth

Site: Blue Chalk Lake

Date: 81/06/02

LFH 0

Location Code: 3001128

Parent Material: sandy till

Ae 20

UTM: 17T 662200.0 5006650.0

Vegetation: maple, birch, beech and oak

B 40

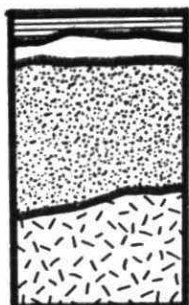
Classification: Unclassified

C 60

Landform: shallow till

Comments: biogeochemical site 1981

Slope: level



Sample No.	Horizon	Depth (cm)	Colour	Sand (%)	Silt (%)	Clay (%)	pH (H ₂ O)	pH (CaCl ₂)	Organic C (%)	Total Nitrogen (mg/g)	Extr. S (ug/g)	Extr. SO ₄ (ug/g)	Avail. P (ug/g)	Total P (ug/g)	Avail. Al (ug/g)
17226	LFH	0-5	7.5YR 2/0				4.4	3.9	8	6.8			17		21.00
17225	Ae	5	7.5YR 5/2	50	44	6	4.5	3.9	2	1.5			3		11.00
17224	B	20	7.5YR 4/4	55	41	4	5.3	4.6	3	1.6			3		4.20
17223	B	20	7.5YR 4/4	54	44	3	5.3	4.7	3	1.7			3		3.50
17222	B	30	7.5YR 4/4	53	46	1	5.4	4.8	2	1.0			3		1.60
17221	B	30	7.5YR 4/4	55	43	1	5.6	4.8	2	0.9			3		1.70
17220	B	40-50	7.5YR 4/4	50	49	0	5.3	4.8	2	0.9			3		1.40
17219	B	40-50	7.5YR 4/4	63	37	0	5.4	4.9	2	0.8			3		1.20
17218	C	50-60	10YR 4/4	66	33	0	5.4	4.8	1	0.6			3		0.91
17217	C	50-60	10YR 4/4	64	33	3	5.5	4.8	2	0.6			3		0.79

SOIL PROFILE INFORMATION (cont'd.)

Site: Blue Chalk Lake

Classification: Unclassified

Sample No.	Horizon	Exchangeable Cations (ug/g)				C.E.C. (m.e.) 100g	Pyrophosphate (%)			Dithionite (%)			CaCO ₃ (%)	Metals (ug/g)			
		Ca	Mg	K	Al		Fe	Al	Mn	Fe	Al	Mn		Zn	Cu	Ni	Pb
17226	LFH	1620	180	280	62	11.0											
17225	Ae	300	45	49	170	3.5											
17224	B	180	17	12	56	1.5											
17223	B	210	22	7	46	1.5											
17222	B	150	12	0	27	1.0											
17221	B	100	10	0	25	1.0											
17220	B	46	7	12	21	0.5											
17219	B	51	7	12	19	0.5											
17218	C	51	7	16	11	0.5											
17217	C	56	7	23	11	0.5											

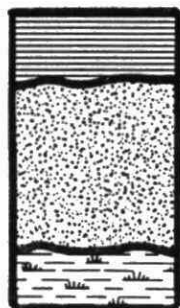
SOIL PROFILE INFORMATION

Horizon Depth

Site: Plastic Lake, #1

Date: 81/06/03

LFH



0

Location Code: 3001129

Parent Material: sandy till

Bf

20

UTM: 17T 670950.0 5005250.0

Vegetation: hemlock

Classification: Humo-Ferric Podzol

40

Landform: shallow till

Comments: faint, discontinuous Ae
mottle colour in Cg 10YR 5/6
biogeochemical site 1981

Cg

70

Slope: level

Sample No.	Horizon	Depth (cm)	Colour	Sand (%)	Silt (%)	Clay (%)	pH (H ₂ O)	pH (CaCl ₂)	Organic C (%)	Total Nitrogen (mg/g)	Extr. S (ug/g)	Extr. SO ₄ (ug/g)	Avail. P (ug/g)	Total P (ug/g)	Avail. Al (ug/g)
17236	LFH	0-20	7.5YR 2/0				4.0	3.3	24	11			57		17.0
17235	LFH	0-20	7.5YR 2/0				4.7	3.8	28	13.1			64		15.0
17234	Bf ₁	25	7.5YR 3/4	49	44	7	4.7	4.2	4	2.0			3		20.0
17233	Bf ₁	23	7.5YR 3/4	57	36	7	4.9	4.3	5	2.8			3		19.0
17232	Bf ₁	30	7.5YR 3/4				5.1	4.5	5	3.1			3		9.6
17231	Bf ₁	30	7.5YR 3/4	55	40	5	5.0	4.5	5	3.3			3		8.6
17230	Bf ₂	50	10YR 3/4	45	50	5	5.0	4.5	3	2.3			3		7.3
17229	Bf ₂	50	10YR 3/4	43	53	4	5.0	4.5	3	1.8			3		6.9
17228	Cg	60-70	10YR 6/1	49	50	1	5.4	4.9	1	0.5			3		1.2
17227	Cg	60-70	10YR 6/1	36	63	2	5.5	4.9	1	0.7			3		1.5

SOIL PROFILE INFORMATION (cont'd.)

Site: Plastic Lake #1

Classification: Humo-Ferric Podzol

Sample No.	Horizon	Exchangeable Cations (ug/g)				C.E.C. (m.e.) 100g	Pyrophosphate (%)			Dithionite (%)			CaCO ₃ (%)	Metals (ug/g)			
		Ca	Mg	K	Al		Fe	Al	Mn	Fe	Al	Mn		Zn	Cu	Ni	Pb
17236	LFH	2600	180	280	140	16.5	0.160	0.180	0.0081	0.450	0.200	0.0109		41	9.9	10.0	56.0
17235	LFH	2690	230	450	38	17.0	0.230	0.190	0.1090	0.570	0.280	0.1350		54	13.0	10.0	50.0
17234	Bf ₁	110	11	190	210	3.2	0.620	0.630	0.0008	1.800	1.060	0.0018		28	6.0	2.4	3.6
17233	Bf ₁	130	22	54	210	3.0	0.860	0.890	0.0006	2.440	1.530	0.0023		28	6.0	3.4	4.8
17232	Bf ₁	90	20	40	100	2.0	0.960	0.970	0.0028	2.620	1.700	0.0048		31	6.9	4.4	4.8
17231	Bf ₁	66	15	35	78	1.5	0.910	1.000	0.0023	2.610	1.830	0.0039		34	9.4	5.1	3.7
17230	Bf ₂	66	15	30	78	1.5	0.460	0.500	0.0009	1.460	1.100	0.0016		35	8.7	7.2	3.0
17229	Bf ₂	61	12	26	66	1.0	0.360	0.490	0.0004	1.200	0.950	0.0012		26	7.7	6.6	3.0
17228	Cg	36	7	2	19	0.5	0.071	0.180	0.0001	1.320	0.530	0.0001		19	12.0	6.6	3.0
17227	Cg	22	5	2	17	0.5	0.057	0.200	0.0001	1.230	0.540	0.0001		15	11.0	6.9	3.0

SOIL PROFILE INFORMATION

Horizon Depth

Site: Plastic Lake, #2

Date: 81/06/03

LFH

0

Location Code: 3001130

Parent Material: sandy till

UTM: 17T670950.0 5005250.0

Vegetation: hemlock

B

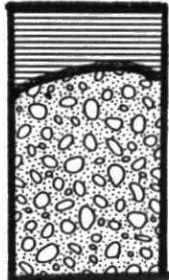
20

Classification: Unclassified

Landform: shallow till and rock ridges

Comments: biogeochemical site 1981
lysimeter pit

Slope: gently sloping



Sample No.	Horizon	Depth (cm)	Colour	Sand (%)	Silt (%)	Clay (%)	pH (H ₂ O)	pH (CaCl ₂)	Organic C (%)	Total Nitrogen (mg/g)	Extr. S (ug/g)	Extr. SO ₄ (ug/g)	Avail. P (ug/g)	Total P (ug/g)	Avail. Al (ug/g)
17240	LFH	0-10	7.5YR 2/0				4.7	3.7	22						5.7
17239	LFH	0-10	7.5YR 2/0				4.7	3.9	9						4.8
17238	B	20-35	7.5YR 3/4				5.2	4.4	5						6.0
17237	B	20-35	7.5YR 3/4				5.2	4.3	5						6.0

SOIL PROFILE INFORMATION (cont'd.)

Site: Plastic Lake #2

Classification: Unclassified

Sample No.	Horizon	Exchangeable Cations (ug/g)				C.E.C. (m.e.) 100g	Pyrophosphate (%)			Dithionite (%)			CaCO ₃ (%)	Metals (ug/g)			
		Ca	Mg	K	Al		Fe	Al	Mn	Fe	Al	Mn		Zn	Cu	Ni	Pb
17240	LFH	1720	280	340	44	12.0											
17239	LFH	1960	220	300	52	13.0											
17238	B	130	21	27	50	1.5											
17237	B	150	20	36	59	1.5											

SOIL PROFILE INFORMATION

Horizon	Depth	Site: Plastic Lake, #3	Date: 81/06/09
LFH	0	Location Code: 3001163	Parent Material: sandy till
Bf ₁	20	UTM: 17T 670950.0 5005250.0	Vegetation: maple
Bf ₂	40	Classification: Orthic Humo-Ferric Podzol	Comments: mottle colour - Cg 7.5YR 4/4 depth to bedrock 70 cm biogeochemical site 1981 lysimeter site
	60	Landform: shallow till	
Cg	80	Slope: level	

Sample No.	Horizon	Depth (cm)	Colour	Sand (%)	Silt (%)	Clay (%)	pH (H ₂ O)	pH (CaCl ₂)	Organic C (%)	Total Nitrogen (mg/g)	Extr. S (ug/g)	Extr. SO ₄ (ug/g)	Avail. P (ug/g)	Total P (ug/g)	Avail. Al (ug/g)
17271	LFH	0-10	7.5YR 2/0	37	35	49	4.6	4.1	10	10.3			12		33.0
17270	LFH	0-10	7.5YR 2/0	33	46	22	5.4	4.4	9	8.8			17		29.0
17269	Bf ₁₁	20	7.5YR 3/2	32	63	5	5.2	4.5	3	2.2			5		8.7
17268	Bf ₁₁	20	7.5YR 3/2	27	63	9	5.2	4.5	3	2.7			7		6.9
17267	Bf ₁₂	40	7.5YR 3/2	38	56	6	5.2	4.6	3	2.1			3		5.6
17266	Bf ₁₂	40	7.5YR 3/2	33	61	6	5.3	4.7	3	2.0			3		5.0
17265	Bf ₂	50	10YR 4/4	55	38	6	5.4	4.8	2	1.5			3		4.7
17264	Bf ₂	50	10YR 4/4	50	46	4	5.4	4.7	2	1.1			3		3.4
17263	Cg	65-70	10YR 4/4	70	27	3	5.4	4.7	1	0.3			3		1.6
17262	Cg	65-70	10YR 4/4	61	36	3	5.2	4.3	1	0.5			3		1.6

SOIL PROFILE INFORMATION (cont'd.)

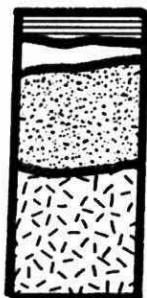
Site: Plastic Lake, #3

Classification: Orthic Humo-Ferric Podzol

Sample No.	Horizon	Exchangeable Cations (ug/g)				C.E.C. (m.e.) 100g	Pyrophosphate (%)			Dithionite (%)			CaCO ₃ (%)	Metals (ug/g)			
		Ca	Mg	K	Al		Fe	Al	Mn	Fe	Al	Mn		Zn	Cu	Ni	Pb
17271	LFH	1650	220	540	180	13.18	0.45	0.36	0.0650	1.10	0.54	0.0910		83	11.0	11	56.0
17270	LFH	1000	140	300	140	8.23	0.34	0.27	0.0760	1.10	0.51	0.1300		70	7.7	11	51.0
17269	Bf ₁₁	130	16	62	74	1.68	0.83	0.56	0.0089	1.90	0.90	0.0210		92	9.2	13	7.6
17268	Bf ₁₁	150	16	54	68	1.69	0.49	0.42	0.0065	1.80	0.97	0.0190		97	11.0	16	7.0
17267	Bf ₁₂	120	11	36	51	1.30	0.46	0.51	0.0026	1.60	1.00	0.0083		81	13.0	18	4.3
17266	Bf ₁₂	120	16	41	47	1.30	0.48	0.54	0.0025	1.50	1.00	0.0074		76	12.0	17	5.2
17265	Bf ₂	91	20	19	38	1.05	0.28	0.33	0.0012	1.30	0.86	0.0035		50	9.9	14	3.0
17264	Bf ₂	70	18	24	32	0.88	0.27	0.36	0.0004	1.20	0.83	0.0023		48	11.0	13	3.0
17263	Cg	40	20	11	17	0.56	0.12	0.23	0.0001	0.86	0.43	0.0002		27	11.0	10	3.0
17262	Cg	20	9	11	15	0.35	0.12	0.17	0.0001	0.89	0.44	0.0005		28	13.10	13	3.0

SOIL PROFILE INFORMATION

Horizon	Depth	Site: Blue Chalk Lake	Date: 81/06/24
LFH	0	Location Code: 3001168	Parent Material: sandy till
Ae	20	UTM: 17T 662200.0 5006650.0	Vegetation: birch
B	40	Classification: Unclassified	
C	60	Landform: shallow till	Comments: biogeochemical site 1981
	80	Slope: level	lysimeter site



Sample No.	Horizon	Depth (cm)	Colour	Sand (%)	Silt (%)	Clay (%)	pH (H ₂ O)	pH (CaCl ₂)	Organic C (%)	Total Nitrogen (mg/g)	Extr. S (ug/g)	Extr. SO ₄ (ug/g)	Avail. P (ug/g)	Total P (ug/g)	Avail. Al (ug/g)
17385	LFH	0-6	10YR 2/1	60	22	18	4.3	4.0	9	11.5			23		11.00
17383	LFH	0-6	10YR 2/1	62	21	17	4.5	4.0	5	3.1			4		7.30
17386	Ae	5-6	10YR 6/1	70	25	5	4.4	3.5	4	0.9			3		5.90
17384	B	20	10YR 3/4	70	23	6	5.6	4.9	3	1.4			3		0.70
17382	B	20	10YR 3/4	78	18	5	5.5	4.8	6	0.8			3		1.50
17381	Bk	40	10YR 4/4	69	23	8	6.0	5.4	1	0.6			3		0.20
17380	B	40	10YR 4/4	76	16	7	5.9	5.2	1	0.6			3		0.33
17379	C	70	2.5Y 4/2	73	20	7	6.5	5.8	1	0.3			3		0.18
17378	C	70	2.5Y 4/2	77	15	8	6.4	5.7	1	0.3			3		0.08

SOIL PROFILE INFORMATION (cont'd.)

Site: Blue Chalk Lake

Classification: Unclassified

Sample No.	Horizon	Exchangeable Cations (ug/g)				C.E.C. (m.e.) 100g	Pyrophosphate (%)			Dithionite (%)			CaCO ₃ (%)	Metals (ug/g)			
		Ca	Mg	K	Al		Fe	Al	Mn	Fe	Al	Mn		Zn	Cu	Ni	Pb
17385	LFH	350	42	63	80	3.03											
17383	LFH	3180	340	480	13	19.93											
17386	Ae	250	21	28	13	1.63											
17384	B	1340	140	210	30	8.62											
17382	B	110	16	24	30	1.04											
17381	Bk	250	11	24	7	1.49							5				
17380	B	180	11	24	4	1.10							3				
17379	C	280	9	24		1.51							2				
17378	C	200	7	24		1.13							1				

SOIL PROFILE INFORMATION

Horizon Depth

Site: Blue Chalk Lake

Date: 81/06/24

LFH 0

Location Code: 3001169

Parent Material: sandy till

Ae 20

UTM: 17T 662200.0 5006650.0

Vegetation: red oak

Bfh 40

Classification: Unclassified

Bf 60

Landform: shallow till and rock ridges

Comments: very stoney,
biogeochemical site 1981

C 80

Slope: level

Sample No.	Horizon	Depth (cm)	Colour	Sand (%)	Silt (%)	Clay (%)	pH (H ₂ O)	pH (CaCl ₂)	Organic C (%)	Total Nitrogen (mg/g)	Extr. S (ug/g)	Extr. SO ₄ (ug/g)	Avail. P (ug/g)	Total P (ug/g)	Avail. Al (ug/g)
17323	LFH	0-10		61	20	19	4.5	3.7		13.3			76		9.00
17322	LFH	0-10					4.2	3.6		18.4			126		11.00
17393	Ae	10-15		68	25	7	4.1	3.4	8	1.2			3		16.00
17392	Bfh	15-30		66	27	8	4.9	4.3	5	1.7			3		8.30
17391	Bfh	15-30		68	25	7	5.0	4.4	5	1.5			3		7.10
17390	Bf	30-50		66	26	9	5.0	4.5	3	0.7			3		3.00
17389	Bf	30-50		67	28	5	5.3	4.6	3	0.7			3		2.30
17388	C	50-80		79	17	4	5.4	4.8	1	0.2			3		1.20
17387	C	50-80		75	19	5	5.2	5.0	2	0.4			3		1.00

SOIL PROFILE INFORMATION (cont'd.)

Site: Blue Chalk Lake

Classification: Unclassified

Sample No.	Horizon	Exchangeable Cations (ug/g)				C.E.C. (m.e.) 100g	Pyrophosphate (%)			Dithionite (%)			CaCO ₃ (%)	Metals (ug/g)			
		Ca	Mg	K	Al		Fe	Al	Mn	Fe	Al	Mn		Zn	Cu	Ni	Pb
17323	LFH	2160	210	410	21	13.70											
17322	LFH	2910	350	720	17	19.34											
17393	Ae	160	34	55	160	2.82											
17392	Bfh	60	14	35	80	1.30											
17391	Bfh	50	11	24	55	0.95											
17390	Bf	40	7	24	34	0.66											
17389	Bf	55	17	29	28	0.77											
17388	C	10	7	4	15	0.27											
17387	C	20	7	0	13	0.28							1				

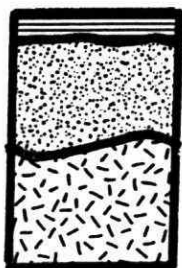
SOIL PROFILE INFORMATION

Horizon Depth

Site: Blue Chalk Lake

Date: 81/06/24

LFH



0

Bf

40

C

60

Location Code: 3001170

Parent Material: sandy till

UTM: 17T 662200.0 5006650.0

Vegetation: beech

Classification: Sombric Humo-Ferric Podzol

Landform: shallow till and rock ridge

Comments: biogeochemical site
precipitation station 10

Slope: gentle slope

Sample No.	Horizon	Depth (cm)	Colour	Sand (%)	Silt (%)	Clay (%)	pH (H ₂ O)	pH (CaCl ₂)	Organic C (%)	Total Nitrogen (mg/g)	Extr. S (ug/g)	Extr. SO ₄ (ug/g)	Avail. P (ug/g)	Total P (ug/g)	Avail. Al (ug/g)
17395	LFH	0-10	10YR 2/1	72	17	11	3.8	3.2	12	13.2			68		18.00
17394	LFH	0-10	10YR 2/1				3.8	3.2	20	11.1			46		20.00
17329	Bf	20	10YR 5/6	65	28	7	5.4	4.5	5	2.7			3		8.30
17328	Bf	20	10YR 5/6	69	25	6	5.7	4.7	4	2.6			3		4.10
17327	Bf	30	10YR 4/6	79	18	3	5.2	4.7	3	1.4			3		4.50
17326	Bf	30	10YR 4/6	75	21	3	5.2	4.6	3	1.6			3		4.80
17325	C	40-60		57	39	4	5.2	4.8	1	0.8			3		2.60
17324	C	40-60		71	26	3	5.5	4.8	1	0.7			3		2.30

SOIL PROFILE INFORMATION (cont'd.)

Site: Blue Chalk Lake

Classification: Sombric Humo-Ferric Podzol

Sample No.	Horizon	Exchangeable Cations (ug/g)				C.E.C. (m.e.) 100g	Pyrophosphate (%)			Dithionite (%)			CaCO ₃ (%)	Metals (ug/g)			
		Ca	Mg	K	Al		Fe	Al	Mn	Fe	Al	Mn		Zn	Cu	Ni	Pb
17395	LFH	1130	160	420	130	9.33	0.190	1.200	0.0083	0.560	0.130	0.0100		52	9.60	8.70	75
17394	LFH	1130	170	360	150	9.37	0.330	0.180	0.0007	0.830	0.210	0.0093		56	9.10	7.30	62
17329	Bf	150	11	36	70	1.64	0.890	8.300	0.0051	1.500	1.300	0.0150		56	4.40	6.40	3
17328	Bf	140	16	71	59	1.60	0.770	4.100	0.0047	1.400	1.200	0.0130		60	3.00	6.30	3
17327	Bf	70	5	11	39	0.80	0.220	4.500	0.0013	0.790	0.910	0.0042		49	5.40	9.30	3
17326	Bf	50	7	11	45	0.78	0.240	4.800	0.0021	0.830	0.900	0.0063		52	5.90	9.70	3
17325	C	60	5	6	20	0.55	0.110	2.600	0.0008	0.420	0.440	0.0039		28	5.90	9.20	3
17324	C	30	5	15	26	0.48	0.120	2.300	0.0008	0.420	0.460	0.0030		31	5.90	9.60	3

SOIL PROFILE INFORMATION

Horizon Depth

Site: Plastic Lake

Date: 81/06/24

LFH

0

Location Code: 3001171

Parent Material: sandy till

Bf

20

UTM: 17T 670950.0 5005250.0

Vegetation: white pine

Bfh

40

Classification: Sombric Humo-Ferric Podzol

Landform: shallow till

Comments: faint, discontinuous Ae, charcoal present in upper 10 cm
biogeochemical site, lysimeter site

C

60

Slope: nearly level

Sample No.	Horizon	Depth (cm)	Colour	Sand (%)	Silt (%)	Clay (%)	pH (H ₂ O)	pH (CaCl ₂)	Organic C (%)	Total Nitrogen (mg/g)	Extr. S (ug/g)	Extr. SO ₄ (ug/g)	Avail. P (ug/g)	Total P (ug/g)	Avail. Al (ug/g)
17403	LFH	0-10	10 YR 2/1				4.2	3.5	19	8.4			50		10.0
17402	LFH	0-10	10 YR 2/1	44	30	27	4.0	3.2	13	11.5			47		25.0
17401	Bf	10-20	10 YR 6/6	54	37	9	4.8	4.5	4	2.4			3		7.9
17400	Bf	10-20	10 YR 6/6	52	39	8	4.9	4.5	5	2.9			3		7.2
17399	Bhf	25	10 YR 4/6	50	41	9	4.8	4.4	5	3.4			3		7.6
17398	Bhf	25	10 YR 4/6	56	34	9	4.9	4.5	6	2.5			3		8.2
17397	C	45	10 YR 5/8	71	22	7	4.8	4.5	4	1.8			3		4.7
17396	C	45	10 YR 5/8	71	22	6	4.8	4.5	3	1.7			3		4.8

SOIL PROFILE INFORMATION (cont'd.)

Site: Plastic Lake

Classification: Sombric Humo-Ferric Podzol

Sample No.	Horizon	Exchangeable Cations (ug/g)				C.E.C. (m.e.) 100g	Pyrophosphate (%)			Dithionite (%)			CaCO ₃ (%)	Zn	Metals (ug/g)		
		Ca	Mg	K	Al		Fe	Al	Mn	Fe	Al	Mn			Cu	Ni	Pb
17403	LFH	1440	400	620	130	13.28	0.300	0.140	0.0270	0.910	0.200	0.0320		57	14.0	10.0	85.0
17402	LFH	1150	150	360	310	10.91	0.340	0.340	0.0200	0.850	0.400	0.0230		55	10.0	10.0	89.0
17401	Bf	20	11	71	88	1.25	0.540	1.100	0.0023	1.800	1.600	0.0061		44	7.6	5.9	3.1
17400	Bf	20	11	63	74	1.09	0.430	0.900	0.0024	1.600	1.600	0.0070		43	8.1	4.4	3.0
17399	Bhf	30	11	55	86	1.24	0.580	1.100	0.0016	1.400	1.600	0.0045		39	9.6	5.4	3.0
17398	Bhf	30	16	51	100	1.41	0.460	0.928	0.0013	1.300	1.600	0.0045		39	11.0	14.0	3.0
17397	C	20	7	24	70	0.91	0.540	1.000	0.0003	1.200	1.400	0.0013		28	12.0	7.3	3.0
17396	C	40	7	27	68	1.00	0.490	1.100	0.0004	1.200	1.600	0.0009		27	11.0	7.5	3.0

SOIL PROFILE INFORMATION

Horizon	Depth	Site: Balsam Lake Provincial Park	Date: 81/06/16
		Location Code: 3001173	Parent Material: fluvial deposit
		UTM: 17T 670250.0 4943350.0	Vegetation: grasses
		Classification: Unclassified	
		Landform: esker	Comments: sample beside APIOS precipitation collector
		Slope: gentle slope	

Sample No.	Horizon	Depth (cm)	Colour	Sand (%)	Silt (%)	Clay (%)	pH (H ₂ O)	pH (CaCl ₂)	Organic C (%)	Total Nitrogen (mg/g)	Extr. S (ug/g)	Extr. SO ₄ (ug/g)	Avail. P (ug/g)	Total P (ug/g)	Avail. Al (ug/g)
18151	Surface	0-15		49	27	25	6.6	6.0	2	1.5			3		0.096

SOIL PROFILE INFORMATION (cont'd.)

Site: Balsam Lake Provincial Park

Classification: Unclassified

Sample No.	Horizon	Exchangeable Cations (ug/g)				C.E.C. (m.e.) 100g	Pyrophosphate (%)			Dithionite (%)			CaCO ₃ (%)	Metals (ug/g)			
		Ca	Mg	K	Al		Fe	Al	Mn	Fe	Al	Mn		Zn	Cu	Ni	Pb
18151	Surface	980	61	38		5.51	0.130	0.094	0.0190	0.910	0.180	0.0820	1	65	9	6.2	6.3

SOIL PROFILE INFORMATION

Horizon

Depth

Site: Balsam Lake Provincial Park

Date: 81/06/16

Ah

0

Location Code: 3001174

Parent Material: lacustrine sand

Bfj

20

UTM: 17T 670250.0 4943350.0

Vegetation: maple, birch, pine

Bm

40

Classification: Gleyed Eutric Brunisol

60

Landform: sand plain

Cgk

80

Slope: very gentle slopes

Comments: depth to faint mottling 30 cm, strongly effervescent at depth 30-60 cm, weathered limestone in Cg horizon, near APIOS collector



Sample No.	Horizon	Depth (cm)	Colour	Sand (%)	Silt (%)	Clay (%)	pH (H ₂ O)	pH (CaCl ₂)	Organic C (%)	Total Nitrogen (mg/g)	Extr. S (ug/g)	Extr. SO ₄ (ug/g)	Avail. P (ug/g)	Total P (ug/g)	Avail. Al (ug/g)
18150	Ah	0-5	5YR 3/1	59	21	19	7.1	6.6	3	2.6			10		0.110
18149	Ah	0-5	5YR 3/1	55	24	22	6.5	6.0	2	3.1			4		0.080
18148	Bfj	5-20	10YR 3/2	64	19	18	6.8	6.3	2	1.7			3		0.080
18147	Bfj	5-20	10YR 3/2	58	24	18	7.0	6.4	2	1.8			3		0.100
18146	Bm	20-30	10YR 4/4	65	24	12	8.3	7.6	1	0.4			3		0.088
18145	Bm	20-30	10YR 4/4	67	20	13	8.2	7.6	1	0.4			3		0.090
18144	Cgk	30-60	2.5Y 5/2	67	23	11	8.5	7.8	1	0.2			3		0.200
18143	Cgk	30-60	2.5Y 5/2	59	32	9	8.5	7.8	1	0.2			3		0.120

SOIL PROFILE INFORMATION (cont'd)

Site: Balsam Lake Provincial Park

Classification: Gleyed Eutric Brunisol

Sample No.	Horizon	Exchangeable Cations (ug/g)				C.E.C. (m.e.) 100g	Pyrophosphate (%)			Dithionite (%)			CaCO3 (%)	Metals (ug/g)			
		Ca	Mg	K	Al		Fe	Al	Mn	Fe	Al	Mn		Zn	Cu	Ni	Pb
18150	Ah	2860	140	150		15.82	0.130	0.078	0.0200	0.600	0.110	0.0240	2	44	6.9	3.5	9.6
18149	Ah	2420	140	110		13.53	0.150	0.092	0.0170	0.560	0.110	0.0220	2	40	6.4	2.6	9.6
18148	Bfj	1640	110	40		9.17	0.210	0.160	0.0280	0.990	0.180	0.0470	1	51	10.0	6.6	3.1
18147	Bfj	1640	110	38		9.16	0.210	0.140	0.0250	0.940	0.160	0.0410	2	50	10.0	5.7	6.1
18146	Bm	1090	41	23		5.85	0.060	0.041	0.0048	0.620	0.088	0.0310	3	29	9.9	5.3	3.1
18145	Bm	870	50	25		4.83	0.064	0.043	0.0074	0.790	0.110	0.0400	3	29	9.9	5.3	4.1
18144	Cgk	1000	34	17		5.32	0.014	0.021	0.0029	0.360	0.044	0.0230	15	23	11.0	4.8	3.0
18143	Cgk	820	41	23		4.48	0.011	0.017	0.0022	0.360	0.047	0.0200	13	25	11.0	4.1	3.0

SOIL PROFILE INFORMATION

Horizon	Depth	Site: Uxbridge	Date: 81/06/16
		Location Code: 3001175	Parent Material: lacustrine sand/till
Ah	0	UTM: 17T 643000.0 4896800.0	Vegetation: grasses
	20	Classification: Orthic Melanic Brunisol	
Bfjk	40	Landform: sand plain/moraine	Comments: iron concretions in C horizon
Ck	60	Slope: nearly level	near APIOS precipitation collector



Sample No.	Horizon	Depth (cm)	Colour	Sand (%)	Silt (%)	Clay (%)	pH (H ₂ O)	pH (CaCl ₂)	Organic C (%)	Total Nitrogen (mg/g)	Extr. S (ug/g)	Extr. SO ₄ (ug/g)	Avail. P (ug/g)	Total P (ug/g)	Avail. Al (ug/g)
18142	Ah	0-25	10YR 3/2	83	6	11	7.9	7.4	2	1.9			3		0.090
18141	Ah	0-25	10YR 3/2	83	6	11	7.8	7.3	4	2.0			3		0.080
18140	Bfjk	25-30	7.5YR 5/8	86	6	9	8.1	7.5	1	0.7			3		0.080
18139	Bmk	25-30	7.5YR 5/8	87	6	7	8.1	7.5	1	0.6			3		0.080
18138	Ck	30-45	10YR 5/4	90	4	6	8.5	7.6	1	0.2			3		0.590

SOIL PROFILE INFORMATION (cont'd.)

Site: Uxbridge

Classification: Orthic Melanic Brunisol

Sample No.	Horizon	Exchangeable Cations (ug/g)				C.E.C. (m.e.) 100g	Pyrophosphate (%)			Dithionite (%)			CaCO ₃ (%)	Metals (ug/g)			
		Ca	Mg	K	Al		Fe	Al	Mn	Fe	Al	Mn		Zn	Cu	Ni	Pb
18142	Ah	2080	31	11		10.70	0.200	0.150	0.0096	0.860	0.170	0.0180	3	36	6.4	2.0	3.0
18141	Ah	2310	31	17		11.82	0.200	0.180	0.0140	0.890	0.180	0.0200	3	40	6.9	2.0	8.5
18140	Bfjk	1090	16	11		5.62	0.200	0.140	0.0056	0.940	0.150	0.0240	5	27	4.9	2.0	3.0
18139	Bmk	930	16	6		4.79	0.170	0.120	0.0055	0.860	0.140	0.0250	5	25	5.9	2.1	3.0
18138	Ck	440	7	11		2.27	0.038	0.033	0.0022	0.440	0.038	0.0075	19	18	4.9	2.0	3.0

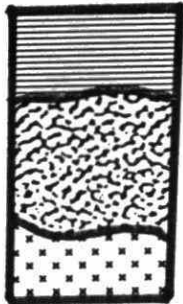
SOIL PROFILE INFORMATION

Horizon Depth

Site: Raven Lake

Date: 81/06/16

Ah



0

Location Code: 3001176

Parent Material: sandy till

20

UTM: 17T 665850.0 4941750.0

Vegetation: maple, grasses

Bm

Classification: Orthic Melanic Brunisol

40

Landform: limestone plain

Comments: vicinity of A.P.I.O.S.
precipitation collector

Ck

60

Slope: level

Sample No.	Horizon	Depth (cm)	Colour	Sand (%)	Silt (%)	Clay (%)	pH (H ₂ O)	pH (CaCl ₂)	Organic C (%)	Total Nitrogen (mg/g)	Extr. S (ug/g)	Extr. SO ₄ (ug/g)	Avail. P (ug/g)	Total P (ug/g)	Avail. Al (ug/g)
18157	Ah	0-25	10YR 3/2	41	37	21	7.6	7.1	3	2.9			19		0.170
18156	Ah	0-25	10YR 3/2	48	33	20	7.7	7.1	3	2.1			20		0.096
18155	Bm	25-45	10YR 4/4	51	34	16	7.7	7.1	1	0.5			3		0.080
18154	Bm	25-45	10YR 4/4	49	35	16	7.9	7.3	1	0.7			4		0.080
18153	Ck	45-60	10YR 5/3	60	31	9	8.3	7.6	1	0.3			3		0.080
18152	Ck	45-60	10YR 5/3	72	23	6	8.4	7.6	1	0.3			3		0.210

SOIL PROFILE INFORMATION (cont'd.)

Site: Raven Lake

Classification: Orthic Melanic Brunisol

Sample No.	Horizon	Exchangeable Cations (ug/g)				C.E.C. (m.e.) 100g	Pyrophosphate (%)			Dithionite (%)			CaCO ₃ (%)	Metals (ug/g)			
		Ca	Mg	K	Al		Fe	Al	Mn	Fe	Al	Mn		Zn	Cu	Ni	Pb
18157	Ah	2800	45	130		14.70	0.130	0.075	0.0180	0.780	0.120	0.0330	2	52	6.8	4.3	9.7
18156	Ah	2250	47	130		11.97	0.130	0.074	0.0190	0.760	0.110	0.0340	1	48	6.7	4.7	3.8
18155	Bm	1310	18	38		6.81	0.110	0.088	0.0048	0.650	0.120	0.0280	2	31	6.7	6.1	3.0
18154	Bm	1590	18	38		8.18	0.120	0.099	0.0048	0.670	0.120	0.0260	2	31	6.1	6.0	5.0
18153	Ck	870	7	17		4.47	0.018	0.021	0.0014	0.260	0.035	0.0140	28	10	6.1	2.0	3.0
18152	Ck	760	7	19		3.93	0.018	0.020	0.0016	0.270	0.035	0.0140	28	13	6.5	2.0	6.3

SOIL PROFILE INFORMATION

Horizon Depth

Site: Devils Glen Provincial Park

Date: 81/06/23

Ah



0

Location Code: 1001186

Parent Material: fluvial outwash

20

UTM: 17T 563050.0 4912000.0

Vegetation: cedar, maple, pine, ferns

Bm

40

Classification: Orthic Sombric Brunisol

Landform: spillway

Comments: slightly stoney (shale)

C

60

Slope: gentle slopes

Sample No.	Horizon	Depth (cm)	Colour	Sand (%)	Silt (%)	Clay (%)	pH (H ₂ O)	pH (CaCl ₂)	Organic C (%)	Total Nitrogen (mg/g)	Extr. S (ug/g)	Extr. SO ₄ (ug/g)	Avail. P (ug/g)	Total P (ug/g)	Avail. Al (ug/g)
18205	Ah	0-15	10YR 3/3	27	48	25	6.1	5.5	3	2.5					0.55
18204	Ah	0-15	10YR 3/3	16	56	25	6.0	5.4	3	2.6					0.51
18203	Bm	15-40	10YR 5/8	26	55	19	6.1	5.3	1	0.5					0.30
18202	Bm	15-40	10YR 5/8	30	54	16	6.0	5.2	1	0.5					0.26
18201	C	40-60	10YR 4/4	24	53	24	6.0	5.1	1	0.4					0.19
18200	C	40-60	10YR 4/4	25	53	22	6.0	5.2	1	0.3					0.18

SOIL PROFILE INFORMATION (cont'd.)

Site: Devils Glen Provincial Park

Classification: Orthic Sombric Brunisol

Sample No.	Horizon	Exchangeable Cations (ug/g)				C.E.C. (m.e.) 100g	Pyrophosphate (%)			Dithionite (%)			CaCO ₃ (%)	Metals (ug/g)			
		Ca	Mg	K	Al		Fe	Al	Mn	Fe	Al	Mn		Zn	Cu	Ni	Pb
18205	Ah	1340	180	140		8.53	0.220	0.180	0.0083	0.890	0.250	0.0130	1	33	10	8.1	11.0
18204	Ah	1510	180	130	0	9.33	0.200	0.180	0.0072	0.940	0.260	0.0130	2	35	11	7.5	8.1
18203	Bm	470	53	56	3	2.94	0.140	0.150	0.0018	1.000	0.310	0.0099	2	24	11	8.9	3.0
18202	Bm	480	58	53	4	0.03	0.170	0.170	0.0034	0.930	0.240	0.0180	2	34	35	14.0	3.0
18201	C	520	70	47	2	3.27	0.110	0.095	0.0031	0.830	0.140	0.0250	2	28	17	10.0	3.0
18200	C	550	82	43	0	3.51	0.110	0.071	0.0027	0.920	0.140	0.0260	2	26	16	9.4	3.0

SOIL PROFILE INFORMATION

Horizon Depth

Site: Carruther's Memorial Conservation Area

Date: 81/06/23

Location Code: 3001190

Parent Material: lacustrine deposit

UTM: 17T 572450.0 4906900.0

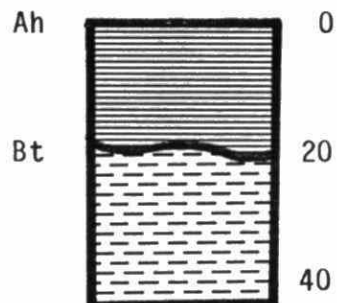
Vegetation: maple, beech, cedar, grass

Classification: Orthic Gray Brown Luvisol

Landform: clay plain/lacustrine sediment

Comments: very compact horizons

Slope: level



Sample No.	Horizon	Depth (cm)	Colour	Sand (%)	Silt (%)	Clay (%)	pH (H ₂ O)	pH (CaCl ₂)	Organic C (%)	Total Nitrogen (mg/g)	Extr. S (ug/g)	Extr. SO ₄ (ug/g)	Avail. P (ug/g)	Total P (ug/g)	Avail. Al (ug/g)
18189	Ah	0-22	10YR 3/1	6	61	34	7.6	7.2	4	4.2			5		0.08
18188	Ah	0-22	10YR 3/1	5	72	24	7.6	7.2	3	4.2			3		0.08
18187	Bt	22-40	10YR 4/3	7	50	42	7.8	7.0	1	1.1			3		0.08
18186	Bt	22-40	10YR 4/3	8	46	47	7.7	7.0	1	1.1			3		0.08

SOIL PROFILE INFORMATION (cont'd.)

Site: Carruther's Memorial Conservation Area

Classification: Orthic Gray Brown Luvisol

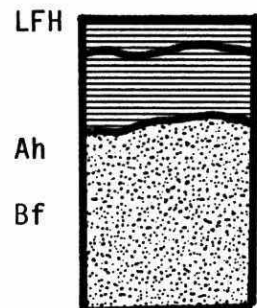
Sample No.	Horizon	Exchangeable Cations (ug/g)				C.E.C. (m.e.) 100g	Pyrophosphate (%)			Dithionite (%)			CaCO ₃ (%)	Zn	Metals (ug/g)		
		Ca	Mg	K	Al		Fe	Al	Mn	Fe	Al	Mn			Cu	Ni	Pb
18189	Ah	3740	300	120		21.42	0.180	0.110	0.0480	1.100	0.110	0.069	4	240	22	16	9.4
18188	Ah	4400	270	96		24.39	0.180	0.083	0.0310	1.100	0.110	0.068	4	230	23	16	9.4
18187	Bt	2230	200	60		12.88	0.160	0.080	0.0041	1.100	0.097	0.022	2	511	18	17	7.4
18186	Bt	2400	210	64		13.87	0.160	0.082	0.0038	1.200	0.100	0.021	2	550	18	17	5.3

SOIL PROFILE INFORMATION

Horizon Depth

Site: Blue Chalk Lake

Date: 81/07/06



Location Code: 3001192

Parent Material: sandy till

UTM: 17T 662200.0 5006500.0

Vegetation: soft maple

Classification: Sombric Humo-Ferric Podzol

Landform: shallow till and rock ridges

Comments: depth to gneiss bedrock 70 cm
biogeochemical site 1981

Slope: nearly level

Sample No.	Horizon	Depth (cm)	Colour	Sand (%)	Silt (%)	Clay (%)	pH (H ₂ O)	pH (CaCl ₂)	Organic C (%)	Total Nitrogen (mg/g)	Extr. S (ug/g)	Extr. SO ₄ (ug/g)	Avail. P (ug/g)	Total P (ug/g)	Avail. Al (ug/g)
18215	Ah	5-15	10YR 3/7	75	14	11	5.3	4.5	2	1.2					6.7
18214	Ah	5-15	10YR 3/2	76	21	9	5.4	4.6	2	1.1					5.8
18213	Bf	30	10YR 5/6	77	18	5	5.5	4.6	2	0.6					4.9
18212	Bf	30	10YR 5/6	75	20	5	5.5	4.7	2	0.8					3.5
18211	Bf	50	10YR 5/6	70	21	9	5.3	4.6	1	0.5					4.2
18210	Bfj	50	10YR 5/6	68	22	10	5.3	4.7	1	0.6					4.2

SOIL PROFILE INFORMATION (cont'd.)

Site: Blue Chalk Lake

Classification: Sombric Humo-Ferric Podzol

Sample No.	Horizon	Exchangeable Cations (ug/g)				C.E.C. (m.e.) 100g	Pyrophosphate (%)			Dithionite (%)			CaCO ₃ (%)	Metals (ug/g)			
		Ca	Mg	K	Al		Fe	Al	Mn	Fe	Al	Mn		Zn	Cu	Ni	Pb
18215	Ah	110	9	24	53	1.19	0.230	0.360	0.0013	0.980	0.680	0.0028		34	6.7	7.6	3
18214	Ah	120	6	24	36	1.05	0.200	0.320	0.0008	0.960	0.660	0.0014		32	7.6	8.6	3
18213	Bf	85	3	10	27	0.75	0.200	0.290	0.0005	0.950	0.640	0.0021		28	9.0	9.2	3
18212	Bf	85	6	10	27	0.77	0.170	0.280	0.0005	0.930	0.650	0.0014		24	8.0	7.5	3
18211	Bf	32	1	6	20	0.38	0.190	0.260	0.0004	0.910	0.570	0.0005		27	8.8	8.3	3
18210	Bfj	21	1	5	24	0.36	0.140	0.230	0.0004	0.890	0.580	0.0012		26	9.3	7.4	3

SOIL PROFILE INFORMATION

Horizon Depth

Site: Blue Chalk Lake

Date: 81/07/06

Ah



0

Location Code: 3001193

Parent Material: sandy till

UTM: 17T 662200.0 5006500.0

Vegetation: maple, yellow birch

20

Classification: Unclassified

B₁

Landform: shallow till and rock ridges

Comments: depth to bedrock 50 cm.
exceedingly stoney, vegetation
site, biogeochemical site

50

Slope: nearly level

Sample No.	Horizon	Depth (cm)	Colour	Sand (%)	Silt (%)	Clay (%)	pH (H ₂ O)	pH (CaCl ₂)	Organic C (%)	Total Nitrogen (mg/g)	Extr. S (ug/g)	Extr. SO ₄ (ug/g)	Avail. P (ug/g)	Total P (ug/g)	Avail. Al (ug/g)
18218	Ah	0-10	10YR 3/2	59	23	18	5.1	4.3	4	3.0					7.2
18217	B ₁	20	5YR 4/3	63	25	12	5.1	4.3	3	1.3					11.0
18216	B ₁	40	5YR 4/3	68	17	14	5.1	4.4	3	1.2					8.0

SOIL PROFILE INFORMATION (cont'd.)

Site: Blue Chalk Lake

Classification: Unclassified

Sample No.	Horizon	Exchangeable Cations (ug/g)				C.E.C. (m.e.) 100g	Pyrophosphate (%)			Dithionite (%)			CaCO ₃ (%)	Metals (ug/g)			
		Ca	Mg	K	Al		Fe	Al	Mn	Fe	Al	Mn		Zn	Cu	Ni	Pb
18218	Ah	900	92	120	88	6.41											
18217	B ₁	120	5	24	66	1.35											
18216	B ₁	74	3	15	58	1.01											

SOIL PROFILE INFORMATION

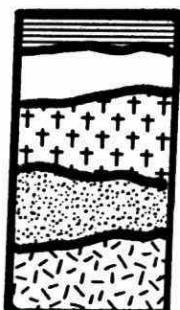
Horizon

Depth

Site: Blue Chalk Lake

Date: 81/07/06

LFH



0

Ae

10

Bhf

20

Bf

40

C

60

Location Code: 3001194

UTM: 17T 662200.0 5006500.0

Classification: Orthic Ferro-Humic Podzol

Landform: shallow till and rock ridges

Slope: gentle slopes

Parent Material: sandy till

Vegetation: soft maple

Comments: slightly stoney, biogeochemical site

Sample No.	Horizon	Depth (cm)	Colour	Sand (%)	Silt (%)	Clay (%)	pH (H ₂ O)	pH (CaCl ₂)	Organic C (%)	Total Nitrogen (mg/g)	Extr. S (ug/g)	Extr. SO ₄ (ug/g)	Avail. P (ug/g)	Total P (ug/g)	Avail. Al (ug/g)
18225	Ae	5-10	2.5YR 5/4	52	30	17	4.3	3.6	3	1.8					24.0
18224	Bhf	10-22	7.5YR 4/6	46	36	18	5.2	4.5	5	2.2					6.2
18223	Bhf	10-22	7.5YR 4/6	51	31	19	5.1	4.4	5	2.4					9.3
18222	Bf	22-45	10YR 5/6	46	42	13	5.1	4.6	2	1.3					4.8
18221	Bf	22-45	10YR 5/6	53	38	9	5.1	4.4	2	1.1					5.3
18220	C	65	10YR 4/6	48	43	9	5.4	4.6	2	1.1					4.1
18219	C	65	10YR 4/6	60	31	9	5.2	4.5	2	0.8					6.1

SOIL PROFILE INFORMATION (cont'd.)

Site: Blue Chalk Lake

Classification: Orthic Ferro-Humic Podzol

Sample No.	Horizon	Exchangeable Cations (ug/g)				C.E.C. (m.e.) 100g	Pyrophosphate (%)			Dithionite (%)			CaCO ₃ (%)	Metals (ug/g)			
		Ca	Mg	K	Al		Fe	Al	Mn	Fe	Al	Mn		Zn	Cu	Ni	Pb
18225	Ae	170	22	73	170	2.96	0.760	0.230	0.0021	1.300	0.360	0.0045		27	3.4	2.9	3
18224	Bhf	91	10	42	37	1.01	0.960	1.400	0.0013	2.200	1.700	0.0036		56	5.0	6.0	3
18223	Bhf	110	10	33	67	1.37	0.600	1.100	0.0008	1.500	1.400	0.0045		67	6.0	10.0	3
18222	Bf	32	1	12	38	0.58	0.210	0.580	0.0005	1.200	1.200	0.0035		46	6.4	10.0	3
18221	Bf	42	1	16	35	0.61	0.230	0.630	0.0003	1.100	1.200	0.0034		51	8.9	11.0	3
18220	C	110	1	37	38	1.02	0.220	0.570	0.0006	0.870	0.830	0.0033		42	11.0	10.0	3
18219	C	42	1	8	42	0.66	0.170	0.460	0.0003	0.730	0.780	0.0024		40	12.0	11.0	3

SOIL PROFILE INFORMATION

Horizon	Depth	Site: Blue Chalk Lake, Dorset	Date: 81/07/06
Ah	0	Location Code: 3001195	Parent Material: sandy till
Ae	20	UTM: 17T 662200.0 5006500.0	Vegetation: hard maple
Bf	40	Classification: Orthic Humo-Ferric Podzol	
	60	Landform: shallow till and rock ridges	Comments: slightly stoney in C horizon
C	80	Slope: nearly level	faint Ae horizon (no sample)
			biogeochemical site

Sample No.	Horizon	Depth (cm)	Colour	Sand (%)	Silt (%)	Clay (%)	pH (H ₂ O)	pH (CaCl ₂)	Organic C (%)	Total Nitrogen (mg/g)	Extr. S (ug/g)	Extr. SO ₄ (ug/g)	Avail. P (ug/g)	Total P (ug/g)	Avail. Al (ug/g)
18233	Ah	0-10	10YR 3/2	57	31	12	4.7	4.0	3	2.7					12.0
18232	Ah	0-10	10YR 3/2	53	35	12	4.7	3.9	3	2.9					10.0
18231	Bf ₁	10-20	10YR 3/4	71	24	5	5.2	4.4	3	2.0					7.7
18230	Bf ₁	10-20	10YR 3/4	66	27	6	5.1	4.4	2	2.1					6.9
18229	Bf ₂	20-45	10YR 4/4	78	19	3	5.2	4.6	2	1.0					3.5
18228	Bf ₂	20-45	10YR 4/4	85	12	3	5.2	4.6	2	0.9					3.2
18227	C	45-65	10YR 5/4	67	27	6	5.3	4.7	1	0.6					2.3
18226	C	45-65	10YR 5/4	55	32	13	5.3	4.7	1	0.5					2.5

SOIL PROFILE INFORMATION (cont'd.)

Site: Blue Chalk Lake

Classification: Orthic Humo-Ferric Podzol

Sample No.	Horizon	Exchangeable Cations (ug/g)				C.E.C. (m.e.) 100g	Pyrophosphate (%)			Dithionite (%)			CaCO ₃ (%)	Metals (ug/g)			
		Ca	Mg	K	Al		Fe	Al	Mn	Fe	Al	Mn		Zn	Cu	Ni	Pb
18233	Ah	370	29	77	140	3.66	0.620	0.190	0.0066	0.750	0.760	0.0045		31	2.4	2.7	9.6
18232	Ah	440	34	87	130	3.99	0.400	0.150	0.0035	0.780	0.170	0.0055		23	2.1	2.1	5.0
18231	Bf ₁	69	1	14	54	0.93	0.370	0.660	0.0005	1.000	1.000	0.0043		44	3.7	8.4	5.9
18230	Bf ₁	85	3	18	56	1.06	0.710	0.850	0.0010	1.500	1.200	0.0038		49	4.1	6.1	3.0
18229	Bf ₂	32	1	6	27	0.46	0.200	0.380	0.0006	0.710	0.700	0.0059		27	4.7	7.2	3.0
18228	Bf ₂	21	1	5	26	0.37	0.200	0.320	0.0006	0.710	0.700	0.0055		27	5.2	8.2	3.0
18227	C	21	1	5	20	0.31	0.074	0.200	0.0002	0.430	0.390	0.0026		18	6.3	8.8	3.0
18226	C	11	1	5	22	0.28	0.083	0.310	0.0002	0.440	0.420	0.0021		18	6.4	8.4	3.0

SOIL PROFILE INFORMATION

Horizon Depth

Site: Blue Chalk Lake

Date: 81/07/06

Ah

0

Location Code: 3001196

Parent Material: sandy till

Bf

20

UTM: 17T 662200.0 5006500.0

Vegetation: hard maple, red oak

Classification: Sombric Humo-Ferric Podzol

40

Landform: shallow till and rock ridge

Comments: small stones in Ah and Bf₁
exceedingly stoney in Bf₂ and C
biogeochemical site

C

60

Slope: level

Sample No.	Horizon	Depth (cm)	Colour	Sand (%)	Silt (%)	Clay (%)	pH (H ₂ O)	pH (CaCl ₂)	Organic C (%)	Total Nitrogen (mg/g)	Extr. S (ug/g)	Extr. SO ₄ (ug/g)	Avail. P (ug/g)	Total P (ug/g)	Avail. Al (ug/g)
18240	Ah	0-12	10YR 2/2	55	30	15	5.3	4.5	3	4.1					4.6
18239	Ah	0-12	10YR 2/2	58	27	14	5.3	4.6	4	3.8					4.4
18238	Bf ₁	12-30	7.5YR 3/4	59	33	8	5.3	4.6	4	2.2					4.4
18237	Bf ₁	12-30	7.5YR 3/4	63	30	8	5.4	4.5	4	2.3					5.0
18236	Bf ₂	20-40	10YR 3/3	72	24	5	5.4	4.5	2	0.8					4.1
18235	Bf ₂	20-40	10YR 3/3	73	23	4	5.4	4.6	2	1.1					4.0
18234	C	40-55	10YR 4/4	81	15	4	5.4	4.7	1	0.6					2.4

SOIL PROFILE INFORMATION (cont'd.)

Site: Blue Chalk Lake

Classification: Sombric Humo-Ferric Podzol

Sample No.	Horizon	Exchangeable Cations (ug/g)				C.E.C. (m.e.) 100g	Pyrophosphate (%)			Dithionite (%)			CaCO ₃ (%)	Metals (ug/g)			
		Ca	Mg	K	Al		Fe	Al	Mn	Fe	Al	Mn		Zn	Cu	Ni	Pb
18240	Ah	960	72	53	40	5.91	0.510	0.240	0.0082	1.200	0.460	0.0140		40	2.8	4.9	4.1
18239	Ah	910	62	60	27	5.46	0.760	0.340	0.0130	1.300	0.550	0.0180		46	3.1	4.9	6.0
18238	Bf ₁	300	13	22	51	2.17	0.600	0.760	0.0016	1.300	1.100	0.0059		51	3.8	8.0	3.0
18237	Bf ₁	240	10	14	58	1.88	0.720	0.880	0.0013	1.300	1.100	0.0062		51	4.2	9.4	3.0
18236	Bf ₂	53	1	6	31	0.60	0.140	0.310	0.0001	0.590	0.660	0.0028		29	4.9	9.7	3.0
18235	Bf ₂	53	1	6	38	0.67	0.210	0.370	0.0002	0.760	0.750	0.0038		40	5.6	12.0	3.0
18234	C	21	1	6	22	0.35	0.120	0.230	0.0001	1.200	0.300	0.0100		28	7.2	15.0	3.0

SOIL PROFILE INFORMATION

Horizon Depth

Site: Blue Chalk Lake

Date: 81/07/06

LFH 0

Location Code: 3001197

Parent Material: sandy till

Bf 20

UTM: 17T 662200.0 5006500.0

Vegetation: red oak, beech, maple

40

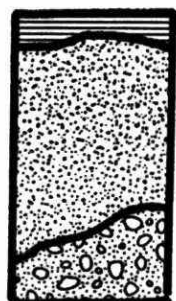
Classification: Orthic Humo-Ferric Podzol

Landform: shallow till rock ridges

Comments: faint, discontinuous Ae biogeochemistry site

C 60

Slope: gentle slope



Sample No.	Horizon	Depth (cm)	Colour	Sand (%)	Silt (%)	Clay (%)	pH (H ₂ O)	pH (CaCl ₂)	Organic C (%)	Total Nitrogen (mg/g)	Extr. S (ug/g)	Extr. SO ₄ (ug/g)	Avail. P (ug/g)	Total P (ug/g)	Avail. Al (ug/g)
18246	Bf ₁	5-30	7.5YR 3/4	68	26	6	5.2	4.4	3	1.8					9.4
18245	Bf ₁	5-30	7.5YR 3/4	69	26	5	5.1	4.5	3	2.0					5.8
18244	Bf ₂	30-40	10YR 4/4	72	21	6	5.1	4.5	2	1.0					4.0
18243	Bf ₂	30-40	10YR 4/4	76	21	3	5.1	4.6	2	1.0					3.8
18242	C	40-55	10YR 4/6	70	22	8	5.2	4.6	1	0.8					3.1
18241	C	40-55	10YR 4/6	73	22	5	5.3	4.6	1	0.7					3.2

SOIL PROFILE INFORMATION (cont'd.)

Site: Blue Chalk Lake

Classification: Orthic Humo-Ferric Podzol

Sample No.	Horizon	Exchangeable Cations (ug/g)				C.E.C. (m.e.) 100g	Pyrophosphate (%)			Dithionite (%)			CaCO ₃ (%)	Zn	Metals (ug/g)		
		Ca	Mg	K	Al		Fe	Al	Mn	Fe	Al	Mn			Cu	Ni	Pb
18246	Bf ₁	32	3	30	60	0.86	0.440	0.630	0.0016	1.600	1.200	0.0057		57	3.1	4.9	3
18245	Bf ₁	32	3	26	47	0.72	0.420	0.600	0.0010	1.600	1.200	0.0040		63	5.1	7.4	3
18244	Bf ₂	21	1	14	31	0.46	0.210	0.330	0.0003	0.880	0.770	0.0024		39	5.1	7.0	3
18243	Bf ₂	21	1	10	27	0.41	0.140	0.320	0.0001	0.730	0.720	0.0021		34	5.3	8.1	3
18242	C	21	1	10	27	0.40	0.110	0.270	0.0001	0.610	0.550	0.0009		26	7.2	9.0	3
18241	C	21	1	14	27	0.41	0.110	0.270	0.0001	0.600	0.540	0.0020		27	7.1	7.8	3

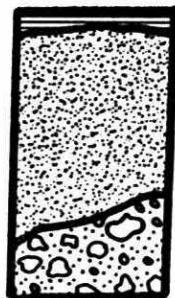
SOIL PROFILE INFORMATION

Horizon Depth

Site: Plastic Lake

Date: 81/07/06

LFH



0

Location Code: 3001198

Parent Material: till

UTM: 17T 670950.0 5005250.0

Vegetation: white pine, red oak, maple

Bf

20

Classification: Orthic Humo-Ferric Podzol

40

Landform: shallow till and rock ridges

Comments: very stoney
depth to faint mottling 40 cm.
biogeochemical site 1981

C

60

Slope: moderate slopes

Sample No.	Horizon	Depth (cm)	Colour	Sand (%)	Silt (%)	Clay (%)	pH (H ₂ O)	pH (CaCl ₂)	Organic C (%)	Total Nitrogen (mg/g)	Extr. S (ug/g)	Extr. SO ₄ (ug/g)	Avail. P (ug/g)	Total P (ug/g)	Avail. Al (ug/g)
18251	Bf	5-15	10YR 3/4	35	53	12	4.9	4.3	2	2.8					16.0
18250	Bf	5-15	10YR 3/4	41	51	9	5.0	4.4	3	2.4					9.6
18249	Bf	20-30	10YR 3/4	39	53	9	5.0	4.4	3	2.3					8.9
18248	Bf	20-30	10YR 3/4	40	52	8	5.0	4.4	4	2.5					9.6
18247	C	40	10YR 2/2	37	54	9	5.1	4.4	3	2.6					9.3

SOIL PROFILE INFORMATION (cont'd.)

Site: Plastic Lake, Dorset

Classification: Orthic Humo-Ferric Podzol

Sample No.	Horizon	Exchangeable Cations (ug/g)				C.E.C. (m.e.) 100g	Pyrophosphate (%)			Dithionite (%)			CaCO ₃ (%)	Metals (ug/g)			
		Ca	Mg	K	Al		Fe	Al	Mn	Fe	Al	Mn		Zn	Cu	Ni	Pb
18251	Bf	74	6	39	100	1.53	1.500	0.710	0.0053	2.700	1.20	0.0095		57	6.6	5.5	3.0
18250	Bf	53	6	51	63	1.07	1.000	0.540	0.0033	2.600	1.00	0.0100		54	7.2	5.6	3.0
18249	Bf	74	6	32	60	1.09	1.500	0.680	0.0013	2.800	1.20	0.0050		59	7.0	6.6	3.0
18248	Bf	85	6	35	63	1.19	1.900	0.850	0.0016	2.800	1.20	0.0057		63	9.1	6.2	6.1
18247	C	120	6	30	67	1.37	0.790	0.660	0.0002	1.500	0.98	0.0014		48	9.6	6.8	3.0

SOIL PROFILE INFORMATION

Horizon Depth

Site: Kawartha Conservation Area

Date: 81/07/23

Ahk 0

Location Code: 3001211

Parent Material: calcareous till

Bm 20

UTM: 17T 677350.0 4919200.0

Vegetation: white pine, cedars, ferns,
grasses

Classification: Orthic Melanic Brunisol

Ck 60

Landform: till plain

Comments: limestone rock fragments and
gravel in C horizon

Slope: level

Sample No.	Horizon	Depth (cm)	Colour	Sand (%)	Silt (%)	Clay (%)	pH (H ₂ O)	pH (CaCl ₂)	Organic C (%)	Total Nitrogen (mg/g)	Extr. S (ug/g)	Extr. SO ₄ (ug/g)	Avail. P (ug/g)	Total P (ug/g)	Avail. Al (ug/g)
18296	Ahk	0-10	7.5YR 3/2	24	44	32	7.5	7.1	3	2.1			24		0.080
18295	Ahk	0-10	7.5YR 3/2	29	39	32	7.7	7.3	4	2.0			24		0.080
18294	Bm	10-35	5YR 3/4	17	51	32	7.7	7.2	2	1.2			15		0.080
18293	Bm	10-35	5YR 3/4	17	52	31	7.6	7.1	2	1.5			12		0.280
18292	Ck	35-47	10YR 6/4	49	41	10	8.1	7.4	1	0.9			5		0.080

SOIL PROFILE INFORMATION (cont'd.)

Site: Kawartha Conservation Area

Classification: Orthic Melanic Brunisol

Sample No.	Horizon	Exchangeable Cations (ug/g)				C.E.C. (m.e.) 100g	Pyrophosphate (%)			Dithionite (%)			CaCO ₃ (%)	Metals (ug/g)			
		Ca	Mg	K	Al		Fe	Al	Mn	Fe	Al	Mn		Zn	Cu	Ni	Pb
18296	Ahk	3060	83	97		16.21	0.096	0.052	0.0230	1.000	0.130	0.056	13	51	6.5	8.5	14.0
18295	Ahk	2710	76	92		14.41	0.086	0.052	0.0220	1.200	0.130	0.054	15	54	7.5	8.5	12.0
18294	Bm	2120	91	58		11.46	0.130	0.066	0.0140	1.500	0.220	0.059	4	58	7.6	12.0	9.7
18293	Bm	2160	87	52		11.63	0.150	0.083	0.0200	1.400	0.210	0.060	4	58	6.6	9.7	9.3
18292	Ck	1120	52	30		6.07	0.059	0.058	0.0038	0.610	0.086	0.025	38	22	7.5	7.6	4.7

SOIL PROFILE INFORMATION

Horizon Depth

Site: The Gut Conservation Area

Date: 81/08/17

Ah

0

Location Code: 3001218

Parent Material: till

Bf

20

UTM: 18T 276750.0 4961550.0

Vegetation: birch, fern, grasses

Classification: Sombric Humo-Ferric Podzol

Landform: moraine

Comments: very stoney in C horizon

C

60

Slope: nearly level

Sample No.	Horizon	Depth (cm)	Colour	Sand (%)	Silt (%)	Clay (%)	pH (H ₂ O)	pH (CaCl ₂)	Organic C (%)	Total Nitrogen (mg/g)	Extr. S (ug/g)	Extr. SO ₄ (ug/g)	Avail. P (ug/g)	Total P (ug/g)	Avail. Al (ug/g)
18383	Ah	0-20	7.5YR 4/4	63	30	7	5.3	4.5	3	2.6			12		3.900
18382	Ah	0-20	7.5YR 4/4	59	39	2	5.5	4.6	3	2.0			10		3.200
18381	Bf	20-35	7.5YR 5/6	73	21	6	5.9	5.1	2	1.3			8		0.500
18380	Bf	20-35	7.5YR 5/6	71	27	2	6.0	5.2	2	1.1			6		0.440
18379	C	35-65	10YR 6/6	69	26	5	6.2	5.4	1	0.4			12		0.270
18378	C	35-65	10YR 6/6	71	27	2	6.1	5.3	1	0.4			11		0.160

SOIL PROFILE INFORMATION (cont'd.)

Site: The Gut Conservation Area

Classification: Sombric Humo-Ferric Podzol

Sample No.	Horizon	Exchangeable Cations (ug/g)				C.E.C. (m.e.) 100g	Pyrophosphate (%)			Dithionite (%)			CaCO ₃ (%)	Metals (ug/g)			
		Ca	Mg	K	Al		Fe	Al	Mn	Fe	Al	Mn		Zn	Cu	Ni	Pb
18383	Ah	400	41	79	28	2.81	0.320	0.240	0.0075	0.870	0.410	0.0140		50	4.8	4.5	11.0
18382	Ah	400	31	67	23	2.65	0.310	0.240	0.0079	0.900	0.420	0.0160		42	4.4	4.4	5.2
18381	Bf	490	15	19	5	2.69	0.580	0.550	0.0009	1.200	0.700	0.0039	2	37	5.4	5.8	3.0
18380	Bf	530	21	29	4	2.92	0.320	0.270	0.0006	0.980	0.610	0.0047	1	43	6.0	5.8	3.0
18379	C	230	6	17	2	1.28	0.086	0.190	0.0001	0.500	0.390	0.0031	1	40	8.6	8.2	3.0
18378	C	200	8	15	4	1.12	0.092	0.210	0.0002	0.540	0.420	0.0031	1	41	8.1	9.2	3.0

SOIL PROFILE INFORMATION

Horizon	Depth	Site: Ganaraska Forest, Port Hope	Date: 81/07/27
Ah	0	Location Code: 3001230	Parent Material: lacustrine sand
Bfj	20	UTM: 17T 711950.0 4884650.0	Vegetation: oak, maple, pine ferns
Bm	40	Classification: Orthic Sombric Brunisol	
IC	60	Landform: sand plain	Comments: some stones in C horizon
IICk	80	Slope: nearly level	road cut, old Lake Iroquois shoreline



Sample No.	Horizon	Depth (cm)	Colour	Sand (%)	Silt (%)	Clay (%)	pH (H ₂ O)	pH (CaCl ₂)	Organic C (%)	Total Nitrogen (mg/g)	Extr. S (ug/g)	Extr. SO ₄ (ug/g)	Avail. P (ug/g)	Total P (ug/g)	Avail. Al (ug/g)
18306	Ah	0-15	10YR 3/3	59	19	21	6.3	5.7	2	1.3			11		0.660
18305	Ah	0-15	10YR 3/3	71	13	16	6.0	5.4	2	1.2			14		0.960
18307	Bfj	15-20	10YR 5/6	69	16	15	5.9	5.2	1	0.6			24		0.890
18304	Bm ₁	30	10YR 6/6	73	17	10	6.1	5.3	1	0.3			17		0.460
18303	Bm ₁	30	10YR 6/6	80	12	9	6.2	5.4	1	0.3			9		0.300
18302	Bk	40	10YR 6/6	80	11	9	6.4	5.6	1	0.1			9		0.098
18301	Bm ₂	40	10YR 6/6	79	7	14	6.5	5.6	1	0.1			9		0.080
18300	IC	50-60	10YR 5/8	81	8	12	7.1	6.4	1	0.2			5		0.080
18299	ICk	50-60	10YR 5/8	81	7	11	8.0	7.3	1	0.2			7		0.080
18298	IICk	70+	10YR 6/4	85	6	9	8.4	7.6	1	0.1			3		0.080
18297	IICk	70+	10YR 6/4	85	7	8	8.5	7.6	1	0.2			3		0.080

SOIL PROFILE INFORMATION (cont'd.)

Site: Ganaraska Forest, Port Hope

Classification: Orthic Sombric Brunisol

Sample No.	Horizon	Exchangeable Cations (ug/g)				C.E.C. (m.e.) 100g	Pyrophosphate (%)			Dithionite (%)			CaCO ₃ (%)	Metals (ug/g)			
		Ca	Mg	K	Al		Fe	Al	Mn	Fe	Al	Mn		Zn	Cu	Ni	Pb
18306	Ah	900	58	26		5.03	0.160	0.160	0.0380	0.620	0.180	0.0720	2	30	1.7	4.9	6.5
18305	Ah	750	53	30	3	4.27	0.190	0.160	0.0380	0.620	0.190	0.0760	2	26	1.7	4.4	3.9
18307	Bfj	680	34	13	2	3.75	0.160	0.170	0.0063	0.740	0.260	0.0140	4	22	1.7	3.9	3.2
18304	Bm ₁	330	22	6	1	1.86	0.095	0.110	0.0028	0.540	0.180	0.0093	1	18	2.7	4.9	3.0
18303	Bm ₁	230	17	4	1	1.31	0.055	0.082	0.0011	0.450	0.140	0.0021	2	16	2.2	4.9	3.0
18302	Bk	350	27	10		2.00	0.047	0.040	0.0019	0.420	0.071	0.0110	10	12	1.7	4.4	3.9
18301	Bm ₂	260	20	7		1.50	0.042	0.043	0.0019	0.370	0.074	0.0089	1	10	1.7	4.4	3.0
18300	IC	770	29	14		4.12	0.044	0.036	0.0019	0.520	0.092	0.0170	2	15	4.2	5.8	3.0
18299	ICk	650	10	12		3.38	0.018	0.018	0.0018	0.360	0.047	0.0160	11	14	4.3	4.2	3.0
18298	IICk	460	3	10		2.35	0.010	0.011	0.0016	0.270	0.032	0.0100	21	11	3.8	3.2	3.0
18297	IICk	520	1	8		2.63	0.011	0.014	0.0018	0.300	0.041	0.0120	18	13	4.4	3.6	3.0

SOIL BASELINE ANALYTICAL DATA, 1980-1981

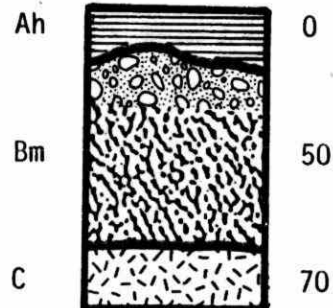
SOUTHEASTERN REGION

SOIL PROFILE INFORMATION

Horizon Depth

Site: Bon Echo Provincial Park

Date: 80/06/16



Location Code: 4001027

Parent Material: sandy till

UTM: 18T 3326950.0 4973750.0

Vegetation: pine, oak, maple

Classification: Orthic Sombric Brunisol

Landform: shallow till and rock outcrop

Comments: many stones at 30 cm. (granite)

Slope: gentle slope

Sample No.	Horizon	Depth (cm)	Colour	Sand (%)	Silt (%)	Clay (%)	pH (H ₂ O)	pH (CaCl ₂)	Organic C (%)	Total Nitrogen (mg/g)	Extr. S (ug/g)	Extr. SO ₄ (ug/g)	Avail. P (ug/g)	Total P (ug/g)	Avail. Al (ug/g)
9209	Ah	0-10	5YR 2.5/2	76	16	9	5.21	4.48	2.79	0.89		8.9		270	
9210	Ah	0-10	5YR 2.5/2	75	16	9	5.21	4.20	2.34	1.05		8.4		310	
9207	Bm	30	7.5YR 4/4	75	19	7	5.76	4.60	0.80	0.63		7.4		350	
9208	Bm	30	7.5YR 4/4	72	22	6	5.53	4.64	0.80	0.61		6.6		300	
9205	Bm	50	7.5YR 4/4	91	4	5	5.62	4.60	0.31	0.22		5.1		470	
9206	Bm	50	7.5YR 4/4	89	7	4	5.54	4.88	0.16	0.24		3.6		260	
9203	C	70+	2.5Y 5/6	79	9	11	5.88	4.89	0.09	0.20		3.9		290	
9204	C	70+	2.5Y 5/6	98	1	1	5.74	4.92	0.13	0.13		4.4		220	

SOIL PROFILE INFORMATION (cont'd.)

Site: Bon Echo Provincial Park

Classification: Orthic Sombric Brunisol

Sample No.	Horizon	Exchangeable Cations (ug/g)				C.E.C. (m.e.) 100g	Pyrophosphate (%)			Dithionite (%)			CaCO ₃ (%)	Metals (ug/g)			
		Ca	Mg	K	Al		Fe	Al	Mn	Fe	Al	Mn		Zn	Cu	Ni	Pb
9209	Ah	408	53	75	59	3.32	0.18	0.14	0.0093	0.78	0.22	0.0240		69	16	7.9	14.0
9210	Ah	329	44	85	83	3.03	0.26	0.15	0.0077	0.81	0.19	0.0220		59	13	6.8	14.0
9207	Bm	125	12	32	13	0.94	0.13	0.20	0.0017	0.92	0.36	0.0100		71	14	12.0	2.1
9208	Bm	67	12	68	17	0.77	0.08	0.17	0.0017	0.77	0.33	0.0060		63	20	12.0	1.9
9205	Bm	48	5	17	8	0.40	0.05	0.08	0.0013	0.48	0.21	0.0060		42	26	9.3	2.8
9206	Bm	33	5	22	13	0.40	0.04	0.08	0.0007	0.32	0.14	0.0030		26	16	7.1	1.1
9203	C	48	5	17	2	0.34	0.07	0.04	0.0019	0.31	0.11	0.0006		24	18	6.8	1.3
9204	C	38	5	17	1	0.28	0.03	0.05	0.0019	0.27	0.08	0.0060		24	30	5.9	1.4

SOIL PROFILE INFORMATION

Horizon	Depth	Site: Bon Echo Provincial Park	Date: 81/05/26
Ah	0	Location Code: 4001027	Parent Material: sandy till
Bm1	20	UTM: 18T 326950.0 4973750.0	Vegetation: white pine, oak, maple
	40	Classification: Orthic Sombric Brunisol	
Bm2	60	Landform: shallow till and outcrop	Comments: resurvey
C	80	Slope: simple, slope class 4, gentle slopes	



Sample No.	Horizon	Depth (cm)	Colour	Sand (%)	Silt (%)	Clay (%)	pH (H ₂ O)	pH (CaCl ₂)	Organic C (%)	Total Nitrogen (mg/g)	Extr. S (ug/g)	Extr. SO ₄ (ug/g)	Avail. P (ug/g)	Total P (ug/g)	Avail. Al (ug/g)
17195	Ah	0-10	10YR 2/1				5.2	4.4	4	1.0			10		4.70
17194	Ah	0-10	10YR 2/1				5.1	4.4	3	1.1			9		5.70
17193	Bm1	10-30	10YR 4/6				5.4	4.4	2	0.6			3		1.90
17192	Bm1	10-30	10YR 4/6				5.5	4.7	2	0.8			3		1.60
17191	Bm2	30-50	10YR 5/4				5.2	4.7	1	0.2			3		1.70
17190	Bm2	30-50	10YR 5/4				5.3	4.8	1	0.3			3		1.20
17189	C	50-80	10YR 5/6				5.2	4.9	1	0.1			3		0.76
17188	C	50-80	10YR 5/6				5.3	4.8	1	0.1			3		0.53

SOIL PROFILE INFORMATION (cont'd.)

Site: Bon Echo Provincial Park

Classification: Orthic Sombric Brunisol

Sample No.	Horizon	Exchangeable Cations (ug/g)				C.E.C. (m.e.) 100g	Pyrophosphate (%)			Dithionite (%)			CaCO ₃ (%)	Metals (ug/g)			
		Ca	Mg	K	Al		Fe	Al	Mn	Fe	Al	Mn		Zn	Cu	Ni	Pb
17195	Ah	370	40	72	36	2.5	0.400	0.34	0.0230	1.170	0.430	0.0334		100	7.2	9.4	17.0
17194	Ah	420	43	74	47	3.0	0.270	0.22	0.0180	1.010	0.320	0.0242		92	6.7	8.8	14.0
17193	Bm ₁	89	9	40	16	1.0	0.190	0.26	0.0025	1.260	0.760	0.0090		120	9.3	16.0	3.8
17192	Bm ₁	49	5	28	16	0.5	0.150	0.25	0.0019	1.110	0.630	0.0063		95	10.0	15.0	3.0
17191	Bm ₂	10	4	13	15	0.5	0.046	0.18	0.0080	0.800	0.380	0.0060		59	17.0	13.0	3.0
17190	Bm ₂	30	7	20	8	0.5	0.082	0.22	0.0014	0.930	0.470	0.0063		70	15.0	14.0	3.0
17189	C	5	1	11	7	0.5	0.041	0.11	0.0012	0.630	0.200	0.0133		57	24.0	15.0	3.0
17188	C	15	4	6	6	0.5	0.049	0.12	0.0010	0.970	0.240	0.0154		53	26.0	16.0	3.0

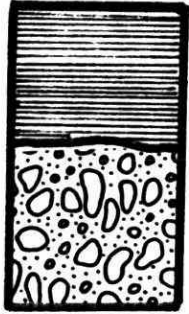
SOIL PROFILE INFORMATION

Horizon Depth

Site: Gould Lake Conservation Area

Date: 80/06/17

Ah



0

Location Code: 4001028

Parent Material: limestone

UTM: 18T 373450.0 1923050.0

Vegetation: grass

Classification: Cumulic Humic Regosol

Landform: limestone plain

Comments: bedrock at 45 cm
limestone fragments throughout pit

C

50

Slope: level

Sample No.	Horizon	Depth (cm)	Colour	Sand (%)	Silt (%)	Clay (%)	pH (H ₂ O)	pH (CaCl ₂)	Organic C (%)	Total Nitrogen (mg/g)	Extr. S (ug/g)	Extr. SO ₄ (ug/g)	Avail. P (ug/g)	Total P (ug/g)	Avail. Al (ug/g)
9213	Ah	0-10	5YR 3/2	41	34	26	6.85	6.68	4.87	4.44		12.9		1050	
9214	Ah	0-10	5YR 3/2	41	29	30	7.08	6.61	4.08	3.31		8.8		1100	
9211	C	45	5YR 4/3	35	32	34	7.16	6.45	2.02	1.50		5.7		900	
9212	C	45	5YR 4/3	32	32	36	7.09	6.81	1.49	1.35		5.9		760	

SOIL PROFILE INFORMATION (cont'd.)

Site: Gould Lake Conservation Area

Classification: Cumulic Humic Regosol

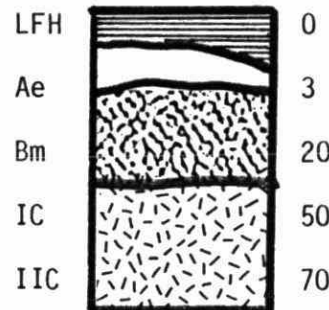
Sample No.	Horizon	Exchangeable Cations (ug/g)				C.E.C. (m.e.) 100g	Pyrophosphate (%)			Dithionite (%)			CaCO ₃ (%)	Metals (ug/g)			
		Ca	Mg	K	Al		Fe	Al	Mn	Fe	Al	Mn		Zn	Cu	Ni	Pb
9213	Ah	3562	205	255		20.07	0.20	0.12	0.100	1.8	0.25	0.15	4	100	28	22.0	34.0
9214	Ah	3148	141	182		17.37	0.23	0.13	0.049	1.6	0.23	0.12	4	86	27	20.0	20.0
9211	C	1967	122	118		11.09	0.24	0.12	0.030	2.1	0.27	0.16	2	73	33	27.0	22.0
9212	C	1920	98	86		10.59	0.19	0.09	0.019	2.1	0.26	0.19	1	73	37	31.0	20.0

SOIL PROFILE INFORMATION

Horizon Depth

Site: Gould Lake Conservation Area

Date: 80/06/17



Location Code: 4001029

Parent Material: till

UTM: 18T 374000.0 4924400.0

Vegetation: oak, maple, pine, spruce

Classification: Orthic Dystric Brunisol

Landform: shallow till and rock ridge

Comments: Ae very thin and discontinuous

Slope: gently sloping

Sample No.	Horizon	Depth (cm)	Colour	Sand (%)	Silt (%)	Clay (%)	pH (H ₂ O)	pH (CaCl ₂)	Organic C (%)	Total Nitrogen (mg/g)	Extr. S (ug/g)	Extr. SO ₄ (ug/g)	Avail. P (ug/g)	Total P (ug/g)	Avail. Al (ug/g)
9223	LFH	0-3	7.5YR 2.5/0	50	25	26	4.72	4.09	16.20	4.20				740	
9224	LFH	0-3	7.5YR 2.5/0	48	24	28	4.53	3.89	16.80	5.23		41.3		630	
9225	Ae	3-5	7.5YR 6/2	62	24	14	4.59	3.74	2.19	0.71		6.4		250	
9221	Bm	20	10YR 4/4	59	32	9	5.47	4.23	0.68	0.36		3.2		390	
9222	Bm	20	10YR 4/4	58	34	8	5.04	4.06	0.84	0.49		3.3		295	
9219	Bm	35	10YR 4/4	56	32	12	5.56	4.42	0.48	0.30		3.7		520	
9220	Bm	35	10YR 4/4	58	32	10	5.45	4.32	0.73	0.32		4.5		320	
9217	IC	50	10YR 5/3	16	51	33	5.76	4.89	0.35	0.28		4.1		820	
9218	IC	50	10YR 5/3	16	52	33	5.59	4.76	0.32	0.35		5.2		770	
9215	IIC	70-80	10YR 5/3	24	39	36	6.03	5.19	0.38	0.33		4.4		1040	
9216	IIC	70-80	10YR 5/3	24	41	35	5.79	5.05	0.52	0.36		5.1		940	

SOIL PROFILE INFORMATION (cont'd.)

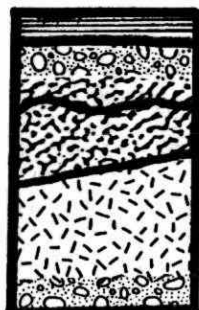
Site: Gould Lake Conservation Area

Classification: Orthic Dystric Brunisol

Sample No.	Horizon	Exchangeable Cations (ug/g)				C.E.C. (m.e.) 100g	Pyrophosphate (%)			Dithionite (%)			CaCO ₃ (%)	Zn	Metals (ug/g)		
		Ca	Mg	K	Al		Fe	Al	Mn	Fe	Al	Mn			Cu	Ni	Pb
9223	LFH	2605	555	200	43	18.37	0.20	0.12	0.0125	0.91	0.10	0.029		66	31	17.0	41.0
9224	LFH	2394	491	157	77	17.09	0.20	0.13	0.0060	0.89	0.09	0.019		65	27	16.0	42.0
9225	Ae	237	41	42	386	5.48	0.25	0.12	0.0018	0.88	0.07	0.013		45	22	9.7	6.5
9221	Bm	237	106	27	165	3.75	0.17	0.11	0.0017	1.0	0.20	0.008		55	34	15.0	3.7
9222	Bm	78	56	27	183	2.74	0.15	0.12	0.0009	0.95	0.21	0.006		44	24	12.0	3.1
9219	Bm	183	86	37	80	2.49	0.13	0.12	0.0011	0.92	0.25	0.007		45	38	18.0	4.2
9220	Bm	162	106	37	109	2.84	0.13	0.12	0.0010	0.91	0.22	0.006		50	27	15.0	2.2
9217	IC	2437	394	37	15	15.58	0.11	0.06	0.0017	1.3	0.11	0.054		63	49	30.0	8.0
9218	IC	1303	377	42	22	4.00	0.11	0.07	0.0016	1.3	0.07	0.060		59	33	29.0	8.2
9215	IIC	244	499	53	4	5.38	0.09	0.05	0.0015	1.1	0.12	0.040	1	64	43	30.0	5.7
9216	IIC	2337	505	53	9	15.96	0.09	0.05	0.0015	1.2	0.19	0.044	3	64	44	30.0	5.2

SOIL PROFILE INFORMATION

Horizon	Depth	Site: Gould Lake Conservation Area	Date: 81/05/26
Ah	0	Location Code: 4001029	Parent Material: glacial till
Bm ₁	20	UTM: 18T 373450.0 1923050.0	Vegetation: oak, maple, pine, spruce
Bm ₂	40	Classification: Orthic Dystric Brunisol	
IC	60	Landform: shallow till/lacustrine	Comments: discontinuous faint Ae horizon
IIC	80	Slope: moderate slopes	very stoney



Sample No.	Horizon	Depth (cm)	Colour	Sand (%)	Silt (%)	Clay (%)	pH (H ₂ O)	pH (CaCl ₂)	Organic C (%)	Total Nitrogen (mg/g)	Extr. S (ug/g)	Extr. SO ₄ (ug/g)	Avail. P (ug/g)	Total P (ug/g)	Avail. Al (ug/g)
17216	Ah	0-3	10YR 2/1	57	37	5	4.6	3.8	2	0.8			3		8.60
17215	Ah	0-3	10YR 2/1				4.6	3.8	5	3.2					
17214	Bm ₁	3-20	10YR 4/6	50	37	13	4.8	4.2	1	0.6			3		16.00
17213	Bm ₁	3-20	10YR 4/6	55	33	12	4.8	4.2	1	0.6			7		17.00
17212	Bm ₂	20-30	10YR 5/4	59	28	13	5.3	4.5	1	0.4			3		2.20
17211	Bm ₂	20-30	10YR 5/4	55	31	14	5.4	4.7	1	0.5			3		0.95
17210	IC	40-50	10YR 5/2	14	47	39	5.8	5.0	1	0.4			7		0.08
17209	IC	40-50	10YR 5/2	16	43	40	5.8	5.0	1	0.4			18		0.10
17201	IIC	50-80	10YR 3/6	56	20	24	5.9	4.8	1	0.4			5		0.08
17200	IIC	50-80	10YR 3/6	43	28	29	5.6	4.6	1	0.4			7		0.12

SOIL PROFILE INFORMATION (cont'd.)

Site: Gould Lake Conservation Area

Classification: Orthic Dystric Brunisol

Sample No.	Horizon	Exchangeable Cations (ug/g)				C.E.C. (m.e.) 100g	Pyrophosphate (%)			Dithionite (%)			CaCO ₃ (%)	Metals (ug/g)			
		Ca	Mg	K	Al		Fe	Al	Mn	Fe	Al	Mn		Zn	Cu	Ni	Pb
17216	Ah	300	42	43	88	2.8											
17215	Ah	1450	160	140	35	9.2											
17214	Bm ₁	120	24	28	97	2.0											
17213	Bm ₁	89	18	28	91	1.5											
17212	Bm ₂	430	110	31	48	3.5											
17211	Bm ₂	670	150	40	31	5.0											
17210	IC	2960	520	60	6	19.0							2				
17209	IC	1640	520	56	8	12.5							1				
17201	IIC	1690	520	58	5	13.0											
17200	IIC	1640	480	70	9	12.5											

SOIL PROFILE INFORMATION

Horizon Depth

Site: Little Cataraqui Creek
Conservation Area

Date: 80/06/17

Location Code: 4001030

Parent Material: lacustrine clay

UTM: 18T379450.0 4903700.0

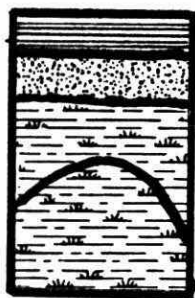
Vegetation: grass, some assorted shrubs

Classification: Fera Humic Gleysol

Landform: clay plain

Comments: many, medium mottles - (10YR 5/6)
at 30 cm.

Slope: level



Sample No.	Horizon	Depth (cm)	Colour	Sand (%)	Silt (%)	Clay (%)	pH (H ₂ O)	pH (CaCl ₂)	Organic C (%)	Total Nitrogen (mg/g)	Extr. S (ug/g)	Extr. SO ₄ (ug/g)	Avail. P (ug/g)	Total P (ug/g)	Avail. Al (ug/g)
9232	Ah	0-10	10YR 3/2	15	41	44	5.83	5.20	5.97	3.37		18.8		640	
9233	Ah	0-10	10YR 3/2	14	43	43	5.88	5.24	5.08	3.48		19.2		680	
9230	Bfj	20	10YR 4/2	15	43	42	5.71	4.99	2.82	1.93		10.0		570	
9231	Bfj	20	10YR 4/2	17	34	49	5.72	4.97	3.33	2.02		8.9		550	
9228	Bmg	35	10YR 5/1	18	35	47	6.28	5.62	0.70	0.65		6.1		390	
9229	Bmg	35	10YR 5/1	14	37	49	6.28	5.61	0.89	0.90		6.2		510	
9226	Cg	50	10YR 5/1	7	18	75	6.66	6.38	0.21	0.32		17.0		600	
9227	Cg	50	10YR 5/1	8	19	73	6.99	6.63	0.25	0.29		15.4		590	

SOIL PROFILE INFORMATION (cont'd.)

Site: Little Cataraqui Creek Conservation Area

Classification: Fera Humic Gleysol

Sample No.	Horizon	Exchangeable Cations (ug/g)				C.E.C. (m.e.) 100g	Pyrophosphate (%)			Dithionite (%)			CaCO ₃ (%)	Zn	Metals (ug/g)		
		Ca	Mg	K	Al		Fe	Al	Mn	Fe	Al	Mn			Cu	Ni	Pb
9232	Ah	1994	566	221	3	15.08	0.27	0.13	0.0099	1.4	0.12	0.035	1	110	35	24	30.0
9233	Ah	1969	440	189	3	10.96	0.26	0.14	0.0085	1.4	0.12	0.035	1	110	39	24	28.0
9230	Bfj	4351	446	105	9	26.56	0.29	0.14	0.0062	1.4	0.11	0.034		96	29	23	15.0
9231	Bfj	4127	440	111	9	25.35	0.28	0.14	0.0058	1.5	0.11	0.037		97	38	23	16.0
9228	Bmg	1574	658	64		13.23	0.13	0.05	0.0035	1.7	0.09	0.053	1	91	32	27	9.1
9229	Bmg	1643	726	69		14.18	0.13	0.06	0.0036	1.5	0.08	0.048	1	94	28	26	7.2
9226	Cg	3470	1774	137		31.79	0.03	0.02	0.0038	1.2	0.08	0.064	2	120	64	52	8.9
9227	Cg	3424	1774	120		31.51	0.03	0.02	0.0041	1.2	0.08	0.059		120	64	50	8.1

SOIL PROFILE INFORMATION

Horizon Depth

Site: Grave's Farm (near Kingston)

Date: 80/06/18

Ah



0

Location Code: 4001031

Parent Material: deltaic sand

UTM: 18T 392850.0 4903750.0

Vegetation: grass, maple, birch

Bm

70

Classification: Orthic Sombric Brunisol

Landform: beach

Comments: iron nodules at 100 cm.

C

90

Slope: gentle slope

Sample No.	Horizon	Depth (cm)	Colour	Sand (%)	Silt (%)	Clay (%)	pH (H ₂ O)	pH (CaCl ₂)	Organic C (%)	Total Nitrogen (mg/g)	Extr. S (ug/g)	Extr. SO ₄ (ug/g)	Avail. P (ug/g)	Total P (ug/g)	Avail. Al (ug/g)
9242	Ah	0-15	10YR 5/3	86	10	4	5.89	4.75	1.26	0.76		6.7		700	
9243	Ah	0-15	10YR 5/3	86	9	5	5.92	4.78	1.26	0.74		6.8		890	
9240	Bm ₁	35	10YR 6/6	92	4	3	6.32	5.19	0.25	0.23		6.1		660	
9241	Bm ₁	35	10YR 6/6	79	12	10	6.27	5.21	0.37	0.31		5.9		540	
9238	Bm ₁	45	10YR 5/6	98	1	1	6.38	5.36	0.04	0.13		3.1		530	
9239	Bm ₁	45	10YR 5/6	98	1	0	6.31	5.33	0.21	0.14		3.6		580	
9236	Bm ₂	70	10YR 5/6	99	2	0	6.37	5.32	0.07	0.17		3.3		940	
9237	Bm ₂	70	10YR 5/6	99	2	0	6.28	5.40	0.09	0.14		3.4		610	
9234	C	90+	10YR 5/4	88	4	8	6.72	5.64	0.23	0.12		2.6		730	
9235	C	90+	10YR 5/4	87	8	5	6.44	5.42	0.23	0.15		5.1		820	

SOIL PROFILE INFORMATION (cont'd.)

Site: Grave's Farm (near Kingston)

Classification: Orthic Sombric Brunisol

Sample No.	Horizon	Exchangeable Cations (ug/g)				C.E.C. (m.e.) 100g	Pyrophosphate (%)			Dithionite (%)			CaCO ₃ (%)	Zn	Metals (ug/g)		
		Ca	Mg	K	Al		Fe	Al	Mn	Fe	Al	Mn			Cu	Ni	Pb
9242	Ah	261	53	75	17.00	2.09	0.14	0.15	0.0083	0.75	0.13	0.031		45	26	7.2	3.9
9243	Ah	185	27	18	5.95	2.12	0.17	0.17	0.0099	0.76	0.11	0.028		36	20	5.7	3.6
9240	Bm ₁	141	22	53	3.30	1.03	0.10	0.13	0.0008	0.74	0.13	0.005	1	30	21	7.6	1.2
9241	Bm ₁	141	32	47	3.25	1.10	0.13	0.16	0.0009	0.79	0.14	0.006	1	31	18	7.4	1.9
9238	Bm ₂	79	10	53	1.55	0.62	0.04	0.07	0.0013	0.30	0.06	0.004	1	14	19	5.5	1.2
9239	Bm ₂	79	12	39	2.25	0.60	0.05	0.08	0.0013	0.55	0.09	0.006	2	17	23	6.5	1.3
9236	Bm ₂	79	10	47	1.05	0.63	0.03	0.05	0.0011	0.43	0.06	0.007	1	15	16	6.9	1.2
9237	Bm ₂	79	10	42	1.15	0.60	0.02	0.05	0.0011	0.39	0.06	0.007	1	12	19	5.8	1.2
9234	C	190	35	73	165.00	1.39	0.02	0.02	0.0010	0.49	0.04	0.012	1	17	14	5.7	1.2
9235	C	215	41	105	0.65	1.67	0.03	0.03	0.0009	0.50	0.05	0.012	1	17	17	8.6	1.2

SOIL PROFILE INFORMATION

Horizon	Depth	Site: Charleston Lake Provincial Park	Date: 80/07/21
Ah	0	Location Code: 4001063	Parent Material: lacustrine clay
Bm	20	UTM: 18T 418100.0 4928650.0	Vegetation: maple, junipers
Bt	40	Classification: Brunisolic Gray Brown Luvisol	
	60	Landform: clay plain	Comments: faint mottling at 35 cm very stoney (granitic)
		Slope: simple, class 1, level	



Sample No.	Horizon	Depth (cm)	Colour	Sand (%)	Silt (%)	Clay (%)	pH (H ₂ O)	pH (CaCl ₂)	Organic C (%)	Total Nitrogen (mg/g)	Extr. S (ug/g)	Extr. SO ₄ (ug/g)	Avail. P (ug/g)	Total P (ug/g)	Avail. Al (ug/g)
9501	Ah	0-20	10YR 3/1	49	33	18	6.02	5.18	2.77	1.77		9.8		400	
9502	Ah	0-20	10YR 3/1	55	28	17	5.94	5.15	3.04	1.88		11.0		490	
9499	Bm	20	10YR 4/3	49	32	19	6.27	5.28	0.69	0.61		4.0		370	
9500	Bm	20	10YR 4/3	48	35	17	6.17	5.18	0.69	0.63		3.5		280	
9497	Bt	35	10YR 5/2	16	36	48	6.21	5.51	0.61	0.45		5.9		580	
9498	Bt	35	10YR 5/2	28	35	37	6.21	5.40	0.59	0.45		4.3		490	

SOIL PROFILE INFORMATION (cont'd.)

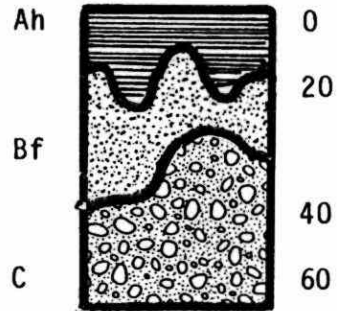
Site: Charleston Lake Provincial Park

Classification: Brunisolic Gray Brown Luvisol

Sample No.	Horizon	Exchangeable Cations (ug/g)				C.E.C. (m.e.) 100g	Pyrophosphate (%)			Dithionite (%)			CaCO ₃ (%)	Zn	Metals (ug/g)		
		Ca	Mg	K	Al		Fe	Al	Mn	Fe	Al	Mn			Cu	Ni	Pb
9501	Ah	1262	255	92	2.75	8.61	0.18	0.09	0.0220	0.64	0.14	0.042	2	133	26	11.0	13.0
9502	Ah	1262	255	92	3.55	8.62	0.19	0.10	0.0220	0.60	0.13	0.039	1	110	13	9.6	14.0
9499	Bm	655	149	26	4.25	4.63	0.19	0.11	0.0120	0.67	0.15	0.042	2	150	26	14.0	5.1
9500	Bm	717	154	26	4.00	4.95	0.18	0.11	0.0120	0.70	0.15	0.043	2	140	27	14.0	4.9
9497	Bt	1756	576	38		13.39	0.08	0.04	0.0053	1.20	0.18	0.060	3	124	47	33.0	8.4
9498	Bt	1408	441	49	3.20	10.66	0.07	0.04	0.0047	1.00	0.17	0.056	2	140	47	29.0	7.4

SOIL PROFILE INFORMATION

Horizon Depth



Site: Foley Mountain Conservation Area

Date: 80/07/21

Location Code: 4001064

Parent Material: sandy till

UTM: 18T 389550.0 4948700.0

Vegetation: pine, spruce, grasses

Classification: Sombric Humo-Ferric Podzol

Landform: shallow till and rock outcrops

Comments: very stoney 30-60 cm
depth to bedrock 60 cm

Slope: simple, class 1, level

Sample No.	Horizon	Depth (cm)	Colour	Sand (%)	Silt (%)	Clay (%)	pH (H ₂ O)	pH (CaCl ₂)	Organic C (%)	Total Nitrogen (mg/g)	Extr. S (ug/g)	Extr. SO ₄ (ug/g)	Avail. P (ug/g)	Total P (ug/g)	Avail. Al (ug/g)
9509	Ah	0-20	10YR 3/2	78	12	10	5.37	4.41	3.43	1.34		9.9		980	
9510	Ah	0-20	10YR 3/2	77	15	8	5.40	4.43	2.42	1.70		7.8		1380	
9507	Bf	20-25	5YR 4/6	84	11	4	5.60	4.72	0.72	0.61		8.2		1540	
9508	Bf	20-25	5YR 4/6	82	13	5	5.50	4.67	0.76	0.62		7.7		1390	
9505	C	35	5YR 5/6	89	7	3	5.69	4.74	0.60	0.43		8.3		1600	
9506	C	35	5YR 5/6	84	11	5	5.58	4.68	0.76	0.20		8.6		580	
9503	C	60	5YR 5/6	92	6	2	5.52	4.60	0.63	0.17		9.2		510	
9504	C	60	5YR 5/6	84	13	3	5.59	4.61	0.65	0.41		7.1		1540	

SOIL PROFILE INFORMATION (cont'd.)

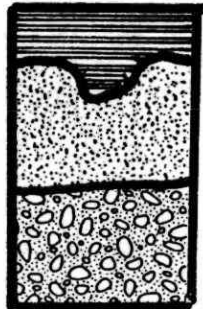
Site: Foley Mountain, Conservation Area

Classification: Sombric Humo-Ferric Podzol

Sample No.	Horizon	Exchangeable Cations (ug/g)				C.E.C. (m.e.) 100g	Pyrophosphate (%)			Dithionite (%)			CaCO ₃ (%)	Zn	Metals (ug/g)		
		Ca	Mg	K	Al		Fe	Al	Mn	Fe	Al	Mn			Cu	Ni	Pb
9509	Ah	299	43	49	50	2.47	0.29	0.27	0.0660	1.6	0.42	0.240		77	9.1	12	16.0
9510	Ah	213	34	39	48	1.90	0.20	0.18	0.0510	1.4	0.37	0.170		67	6.6	54	11.0
9507	Bf	53	12	20	17	0.58	0.18	0.22	0.0025	1.4	0.43	0.018		49	23.0	23	2.7
9508	Bf	53	12	15	19	0.58	0.17	0.24	0.0041	1.3	0.42	0.023		46	20.0	18	3.1
9505	C	74	12	15	17	0.68	0.25	0.25	0.0043	1.3	0.36	0.022		47	20.0	31	3.1
9506	C	85	12	15	21	0.77	0.19	0.21	0.0036	1.3	0.38	0.024		43	19.0	25	3.5
9503	C	96	12	15	83	0.65	0.26	0.20	0.0039	1.3	0.34	0.017		30	23.0	29	2.5
9504	C	74	12	10	27	0.76	0.25	0.20	0.0066	1.4	0.37	0.029		36	28.0	34	3.1

SOIL PROFILE INFORMATION

Horizon	Depth	Site: Foley Mountain Conservation Area	Date: 81/07/13
Ah	0	Location Code: 4001064	Parent Material: sandy till
Bf	20	UTM: 18T 389550.0 4948700.0	Vegetation: grasses, pine, spruce
	40	Classification: Sombric Humo-Ferric Podzol	
C	60	Landform: shallow till and rock ridges	Comments: few stones throughout profile resurvey
		Slope: simple, class 1, level	



Sample No.	Horizon	Depth (cm)	Colour	Sand (%)	Silt (%)	Clay (%)	pH (H ₂ O)	pH (CaCl ₂)	Organic C (%)	Total Nitrogen (mg/g)	Extr. S (ug/g)	Extr. SO ₄ (ug/g)	Avail. P (ug/g)	Total P (ug/g)	Avail. Al (ug/g)
17423	Ah	0-15	10YR 2.2	79	14	8	5.0	4.1	4	1.8			21		5.1
17422	Ah	0-15	10YR 2/2	75	15	10	5.0	4.2	4	2.0			16		4.5
17421	Bf	20	7.5YR 4/6	86	9	5	5.1	4.5	1	0.7			48		3.8
17420	Bf	20	7.5YR 4/6	87	9	4	5.1	4.4	1	0.7			41		3.8
17419	C	35	10YR 4/6	87	7	5	5.0	4.3	3	1.0			37		6.3
17418	C	35	10YR 4/6	88	7	4	5.0	4.4	2	0.9			46		4.5

SOIL PROFILE INFORMATION (cont'd.)

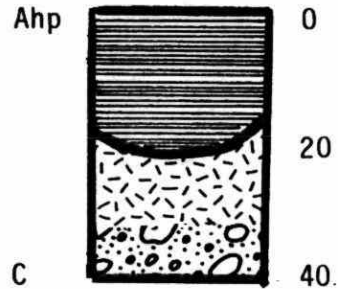
Site: Foley Mountain Conservation Area

Classification: Sombric Humo-Ferric Podzol

Sample No.	Horizon	Exchangeable Cations (ug/g)				C.E.C. (m.e.) 100g	Pyrophosphate (%)			Dithionite (%)			CaCO ₃ (%)	Zn	Metals (ug/g)		
		Ca	Mg	K	Al		Fe	Al	Mn	Fe	Al	Mn			Cu	Ni	Pb
17423	Ah	190	32	39	53	1.85											
17422	Ah	250	37	35	66	2.31											
17421	Bf	30	9	8	36	0.61											
17420	Bf	30	11	4	34	0.59											
17419	C	80	16	8	63	1.18											
17418	C	70	7	4	49	0.90											

SOIL PROFILE INFORMATION

Horizon Depth



Site: Perth Wildlife Reserve

Date: 80/07/21

Location Code: 4001065

Parent Material: till

UTM: 18T 407100.0 4972150.0

Vegetation: grasses

Classification: Orthic Humic Regosol

Landform: shallow till and rock ridge

Comments: depth to granite bedrock 35 cm
stoney at 30 cm

Slope: level

Sample No.	Horizon	Depth (cm)	Colour	Sand (%)	Silt (%)	Clay (%)	pH (H ₂ O)	pH (CaCl ₂)	Organic C (%)	Total Nitrogen (mg/g)	Extr. S (ug/g)	Extr. SO ₄ (ug/g)	Avail. P (ug/g)	Total P (ug/g)	Avail. Al (ug/g)
9513	Ahp	0-20	10YR 3/2	42	35	23	6.65	5.97	2.86	1.99		9.8		780	
9514	Ahp	0-20	10YR 3/2	50	28	22	6.79	6.06	2.53	2.10		11.0		870	
9511	C	30	10YR 4/3	43	32	25	6.93	6.32	0.72	0.53		6.0		890	
9512	Ck	30	10YR 4/3	50	23	27	6.95	6.32	0.65	0.70		4.0		910	

SOIL PROFILE INFORMATION (cont'd.)

Site: Perth Wildlife Reserve

Classification: Orthic Humic Regosol

Sample No.	Horizon	Exchangeable Cations (ug/g)				C.E.C. (m.e.) 100g	Pyrophosphate (%)			Dithionite (%)			CaCO ₃ (%)	Zn	Metals (ug/g)		
		Ca	Mg	K	Al		Fe	Al	Mn	Fe	Al	Mn			Cu	Ni	Pb
9513	Ahp	1932	166	45		11.09	0.15	0.10	0.0300	1.2	0.18	0.089	3	58	13	13	7.4
9514	Ahp	1861	171	50		10.79	0.13	0.09	0.0280	1.2	0.18	0.089	3	50	11	11	5.4
9511	C	1310	136	32		7.71	0.09	0.03	0.0560	1.2	0.17	0.089	3	35	12	16	3.7
9512	Ck	1319	134	32		7.74	0.07	0.03	0.0054	1.1	0.15	0.083	7	32	13	16	3.1

SOIL PROFILE INFORMATION

Horizon Depth

Site: Rideau River Provincial Park

Date: 80/07/21

Ap

0

Location Code: 4001066

Parent Material: lacustrine sand

UTM: 18T 446550.0 4989100.0

Vegetation: pine, ferns, grass

Classification: Eluviated Melanic Brunisol

Ae

40

Landform: sand plain/beach

Comments: abundant mottles in C (10YR 5/8)
iron concretions in Bm
evidence of plowing,
reforestation

Bm

60

Slope: level

Cg

80



Sample No.	Horizon	Depth (cm)	Colour	Sand (%)	Silt (%)	Clay (%)	pH (H ₂ O)	pH (CaCl ₂)	Organic C (%)	Total Nitrogen (mg/g)	Extr. S (ug/g)	Extr. SO ₄ (ug/g)	Avail. P (ug/g)	Total P (ug/g)	Avail. Al (ug/g)
9523	Ap	0-30	10YR 3/3	82	13	5	6.11	5.14	2.74	1.24		17.0		370	
9524	Ap	0-30	10YR 3/3	82	11	7	6.08	5.20	2.62	1.30		18.0		430	
9521	Ae	30-40	5YR 6/1	85	8	7	6.76	5.83	0.57	0.29		5.4		110	
9522	Ae	30-40	5YR 6/1	83	11	6	6.44	5.36	1.05	0.42		8.0		150	
9519	Bm	40-50	5YR 4/4	88	5	6	7.47	6.59	0.67	0.33		8.7		960	
9520	Bm	40-50	5YR 4/4	87	5	8	7.20	6.23	1.00	0.46		9.6		900	
9517	Cg	55	10YR 6/3	88	4	8	8.04	7.17	0.21	0.10		6.2		980	
9518	Cg	55	10YR 6/3	87	5	7	7.85	7.00	0.21	0.11		7.3		900	
9515	Cg	70	10YR 5/2	82	10	8	8.32	7.48	0.15	0.09		5.5		1230	
9516	Cg	70	10YR 5/2	84	9	7	8.23	7.47	0.15	0.09		8.5		1270	

SOIL PROFILE INFORMATION (cont'd.)

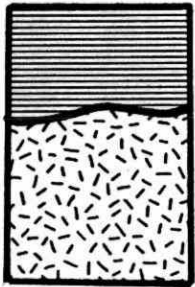
Site: Rideau River Provincial Park

Classification: Eluviated Melanic Brunisol

Sample No.	Horizon	Exchangeable Cations (ug/g)				C.E.C. (m.e.) 100g	Pyrophosphate (%)			Dithionite (%)			CaCO ₃ (%)	Metals (ug/g)			
		Ca	Mg	K	Al		Fe	Al	Mn	Fe	Al	Mn		Zn	Cu	Ni	Pb
9523	Ap	586	73	20.0	8.4	4.40	0.15	0.16	0.0010	0.60	0.32	0.003	2	21.0	1.50	2.6	5.6
9524	Ap	631	73	20.0	6.8	3.81	0.18	0.19	0.0008	0.58	0.31	0.002	2	19.0	1.70	2.0	5.0
9521	Ae	340	45	0.0		2.06	0.02	0.02	0.0040	0.18	0.04	0.001	8	7.1	1.00	1.8	2.4
9522	Ae	387	63	10.0	1.9	2.74	0.03	0.03	0.0040	0.11	0.05	0.001	1	5.5	0.82	1.5	3.0
9519	Bm	558	92	2.5		3.54	0.11	0.16	0.0040	0.51	0.18	0.002	2	9.9	1.80	4.7	1.4
9520	Bm	599	92	2.5		3.74	0.10	0.18	0.0040	0.40	0.17	0.002	2	9.2	1.40	4.6	1.2
9517	Cg	452	124	0.0		3.25	0.05	0.02	0.0013	0.66	0.08	0.011	2	11.0	2.90	5.6	1.3
9518	Cg	404	92	2.5		2.77	0.08	0.03	0.0015	0.72	0.09	0.011	1	10.0	2.20	3.7	1.4
9515	Cg	388	131	2.5		3.00	0.02	0.00	0.0008	0.76	0.05	0.017	2	15.0	6.30	5.3	1.3
9516	Cg	460	141	2.5		3.44	0.02	0.00	0.0005	0.71	0.04	0.017	2	15.0	6.00	4.9	1.3

SOIL PROFILE INFORMATION

Horizon	Depth	Site: Vincent Massey Park, Ottawa	Date: 80/07/22
Ah	0	Location Code: 4001067	Parent Material: lacustrine clay
	20	UTM: 18T 444250.0 5024850.0	Vegetation: maple
C	40	Classification: Orthic Humic Regosol	
	60	Landform: clay plain	Comments: no ground vegetation, city park
		Slope: gently sloping	



Sample No.	Horizon	Depth (cm)	Colour	Sand (%)	Silt (%)	Clay (%)	pH (H ₂ O)	pH (CaCl ₂)	Organic C (%)	Total Nitrogen (mg/g)	Extr. S (ug/g)	Extr. SO ₄ (ug/g)	Avail. P (ug/g)	Total P (ug/g)	Avail. Al (ug/g)
9529	Ah	0-15	10YR 3/1	16	27	57	6.81	6.40	3.71	2.61		22		1470	
9530	Ah	0-15	10YR 3/1	20	24	56	7.01	6.53	3.67	2.89		17		1460	
9527	Ah	25	5YR 4/1	25	7	69	7.29	6.95	1.62	1.24		25		1270	
9528	Ah	25	5YR 4/1	16	45	40	7.33	7.00	1.82	1.53		13		1390	
9525	C	40	10YR 5/1	4	31	64	7.62	7.15	0.65	0.52		24		1200	
9526	C	40	10YR 5/1	9	30	61	7.66	7.26	0.65	0.48		23		1180	

SOIL PROFILE INFORMATION (cont'd.)

Site: Vincent Massey Park, Ottawa

Classification: Orthic Humic Regosol

Sample No.	Horizon	Exchangeable Cations (ug/g)				C.E.C. (m.e.) 100g	Pyrophosphate (%)			Dithionite (%)			CaCO ₃ (%)	Metals (ug/g)			
		Ca	Mg	K	Al		Fe	Al	Mn	Fe	Al	Mn		Zn	Cu	Ni	Pb
9529	Ah	4704	477	101		27.60	0.14	0.08	0.0190	0.91	0.19	0.078	3	170	39	51	15.0
9530	Ah	4868	472	105		28.34	0.13	0.08	0.0170	0.79	0.15	0.072	2	150	38	50	14.0
9527	Ah	4377	536	178		26.63	0.08	0.05	0.0077	0.85	0.15	0.085	4	150	31	52	7.8
9528	Ah	4213	511	262		25.85	0.08	0.04	0.0120	0.83	0.15	0.090	2	130	29	47	10.0
9525	C	3396	511	230		21.67	0.03	0.01	0.0020	0.54	0.11	0.025	2	160	29	45	5.5
9526	C	2813	482	246		18.55	0.02	0.01	0.0022	0.52	0.11	0.021	2	160	28	43	6.3

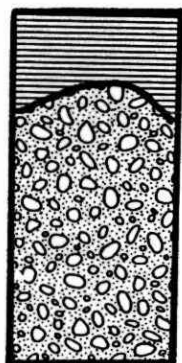
SOIL PROFILE INFORMATION

Horizon Depth

Site: South Nation Provincial Park

Date: 80/07/22

Ah



0

Location Code: 4001068

Parent Material: fluvial sand deposit

UTM: 18T 495350.0 5044800.0

Vegetation: oak, sumac, spruce, pine

Classification: Unclassified

Bhj

40

Landform: peat and muck

Comments: mica found at 40 cm.
very stoney
evidence of past disturbance at
40 cm+

60

Slope: gentle slope

Sample No.	Horizon	Depth (cm)	Colour	Sand (%)	Silt (%)	Clay (%)	pH (H ₂ O)	pH (CaCl ₂)	Organic C (%)	Total Nitrogen (mg/g)	Extr. S (ug/g)	Extr. SO ₄ (ug/g)	Avail. P (ug/g)	Total P (ug/g)	Avail. Al (ug/g)
9535	Ah	0-15	10YR 3/1	71	8	21	6.73	6.18	8.22	3.85		20.0		680	
9536	Ah	0-15	10YR 3/1	73	6	21	6.59	5.90	5.25	2.86		12.0		510	
9533	Bhj	30	10YR 3/2	90	5	5	6.29	5.36	1.38	1.00		5.8		830	
9534	Bh	30	10YR 3/2	90	5	5	6.27	5.30	2.35	0.91		7.2		840	
9531	Bhj	40	10YR 3/3	87	4	9	5.63	4.65	1.42	1.12		8.9		1010	
9532	Bhj	40	10YR 3/3	85	5	10	5.75	4.73	1.86	1.09		7.5		970	

SOIL PROFILE INFORMATION (cont'd.)

Site: South Nation Provincial Park

Classification: Unclassified

Sample No.	Horizon	Exchangeable Cations (ug/g)				C.E.C. (m.e.) 100g	Pyrophosphate (%)			Dithionite (%)			CaCO ₃ (%)	Zn	Metals (ug/g)		
		Ca	Mg	K	Al		Fe	Al	Mn	Fe	Al	Mn			Cu	Ni	Pb
9535	Ah	3723	245	121		3.86	0.30	0.22	0.0360	0.50	0.14	0.021	1	61	13.0	10	46.0
9536	Ah	3396	178	75		17.61	0.27	0.19	0.0100	0.55	0.17	0.013	2	46	10.0	10	20.0
9533	Bhj	986	61	40	2.0	5.54	0.07	0.04	0.0110	0.52	0.12	0.025	2	38	9.3	130	4.2
9534	Bh	999	66	40	1.4	5.37	0.09	0.06	0.0110	0.65	0.16	0.029	0	54	12.0	11	7.2
9531	Bhj	500	46	25	17.0	3.10	0.08	0.04	0.0055	0.42	0.10	0.013	0	43	10.0	18	4.4
9532	Bhj	619	56	25	12.0	3.72	0.15	0.07	0.0170	0.66	0.16	0.027	0	49	14.0	170	5.6

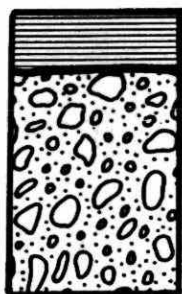
SOIL PROFILE INFORMATION

Horizon Depth

Site: Carillon Provincial Park

Date: 80/07/22

Ah



0

Location Code: 4001069

Parent Material: shale

UTM: 18T 544450.0 5044750.0

Vegetation: maple, spruce

20

Classification: Orthic Regosol

Landform: shale plain/till plain

Comments: exceedingly stoney

C

40

Slope: level

Sample No.	Horizon	Depth (cm)	Colour	Sand (%)	Silt (%)	Clay (%)	pH (H ₂ O)	pH (CaCl ₂)	Organic C (%)	Total Nitrogen (mg/g)	Extr. S (ug/g)	Extr. SO ₄ (ug/g)	Avail. P (ug/g)	Total P (ug/g)	Avail. Al (ug/g)
9538	Ah	0-9	7.5YR 3/0	56	18	26	4.22	3.57	8.15	4.89		37		830	
9539	Ah	0-9	7.5YR 3/0	69	22	9	4.48	3.86	8.22	4.39				690	
9537	C	20	7.5YR 3/2	69	16	15	4.58	3.78	2.10	1.43		10		370	

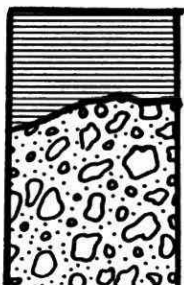
SOIL PROFILE INFORMATION (cont'd.)

Site: Carillon Provincial Park

Classification: Orthic Regosol

Sample No.	Horizon	Exchangeable Cations (ug/g)				C.E.C. (m.e.) 100g	Pyrophosphate (%)			Dithionite (%)			CaCO ₃ (%)	Metals (ug/g)			
		Ca	Mg	K	Al		Fe	Al	Mn	Fe	Al	Mn		Zn	Cu	Ni	Pb
9538	Ah	813	142	4	135	6.93	0.08	0.06	0.0240	0.33	0.08	0.029		39	6.6	5.4	54.0
9539	Ah	1029	142	152	55	6.37	0.08	0.05	0.0710	0.29	0.07	0.080		42	7.6	5.5	57.0
9537	C	101	27	50	471	5.54	0.08	0.11	0.0037	0.45	0.11	0.007		33	3.1	4.7	2.6

SOIL PROFILE INFORMATION

Horizon	Depth	Site: Carillon Provincial Park	Date: 81/07/13
Ah	0	Location Code: 4001069	Parent Material: shale
	20	UTM: 18T 544450.0 5044750.0	Vegetation: maple, spruce
	40	Classification: Orthic Regosol	Comments: exceedingly stoney (slate) resurvey
C		Landform: till plain/shale plain	
		Slope: level	

Sample No.	Horizon	Depth (cm)	Colour	Sand (%)	Silt (%)	Clay (%)	pH (H ₂ O)	pH (CaCl ₂)	Organic C (%)	Total Nitrogen (mg/g)	Extr. S (ug/g)	Extr. SO ₄ (ug/g)	Avail. P (ug/g)	Total P (ug/g)	Avail. Al (ug/g)
17431	Ah	0-15	10YR 2/1				4.9	4.2							3.4
17430	C	15-25	10YR 2/2				4.6	4.0							11.0

SOIL PROFILE INFORMATION (cont'd.)

Site: Carillon Provincial Park

Classification: Orthic Regosol

Sample No.	Horizon	Exchangeable Cations (ug/g)				C.E.C. (m.e.) 100g	Pyrophosphate (%)			Dithionite (%)			CaCO ₃ (%)	Metals (ug/g)			
		Ca	Mg	K	Al		Fe	Al	Mn	Fe	Al	Mn		Zn	Cu	Ni	Pb
17431	Ah	2100	240	160	22	13.04											
17430	C	1060	96	130	200	8.40											

SOIL PROFILE INFORMATION

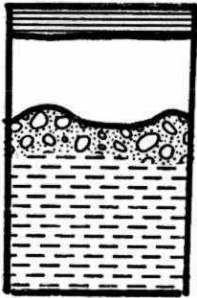
Horizon

Depth

Site: Gray's Creek Conservation Area

Date: 80/07/22

Ah



0

Ahe

20

Bt

40

60

Location Code: 4001070

Parent Material: lacustrine clay

UTM: 18T 526300.0 4986750.0

Vegetation: hawthorn, poplar

Classification: Orthic Gray Brown Luvisol

Landform: clay plain

Comments: stoney at 30 cm+

Slope: level

Sample No.	Horizon	Depth (cm)	Colour	Sand (%)	Silt (%)	Clay (%)	pH (H ₂ O)	pH (CaCl ₂)	Organic C (%)	Total Nitrogen (mg/g)	Extr. S (ug/g)	Extr. SO ₄ (ug/g)	Avail. P (ug/g)	Total P (ug/g)	Avail. Al (ug/g)
9544	Ah	0-10	10YR 3/1	27	21	52	6.82	6.41	7.35	4.88		28		1370	
9545	Ah	0-10	10YR 3/1	26	21	53	6.74	6.26	13.93	4.57		29		1350	
9542	Ahe	25	10YR2.5/1	34	25	42	5.90	5.40	3.74	2.74		18		1080	
9543	Ahe	25	10YR2.5/1	32	27	41	5.97	5.46	4.34	3.12		18		1160	
9540	Bt	40	10YR 4/2	11	18	71	6.57	5.98	1.35	1.28		15		1110	
9541	Bt	40	10YR 4/2	10	20	70	6.37	5.96	1.21	1.26		15		860	

SOIL PROFILE INFORMATION (cont'd.)

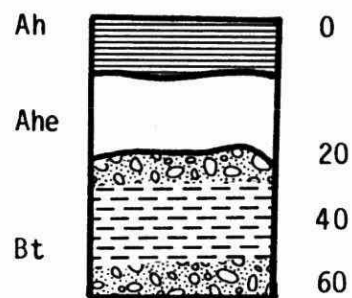
Site: Gray's Creek Conservation Area

Classification: Orthic Gray Brown Luvisol

Sample No.	Horizon	Exchangeable Cations (ug/g)				C.E.C. (m.e.) 100g	Pyrophosphate (%)			Dithionite (%)			CaCO ₃ (%)	Metals (ug/g)			
		Ca	Mg	K	Al		Fe	Al	Mn	Fe	Al	Mn		Zn	Cu	Ni	Pb
9544	Ah	4540	613	393		28.58	0.20	0.11	0.0220	1.2	0.19	0.066	2	130	28	32	25.0
9545	Ah	4213	556	387		26.52	0.23	0.12	0.0290	1.2	0.19	0.064	2	120	29	32	25.0
9542	Ahe	2560	509	205		16.58	0.28	0.13	0.0220	1.3	0.22	0.072	2	110	25	34	12.0
9543	Ahe	4094	509	216	0.9	25.11	0.27	0.14	0.0220	1.3	0.22	0.072	2	110	24	32	13.0
9540	Bt	3723	721	188		24.87	0.18	0.06	0.0086	1.4	0.22	0.061	1	140	37	57	11.0
9541	Bt	3723	761	172		25.13	0.19	0.06	0.0070	1.6	0.25	0.057	2	140	35	53	9.8

SOIL PROFILE INFORMATION

Horizon Depth



Site: Gray's Creek Conservation Area

Date: 81/07/13

Location Code: 4001070

Parent Material: lacustrine clay

UTM: 18T 526300.0 4986750.0

Vegetation: hawthorn, poplar

Classification: Orthic Gray Brown Luvisol

Landform: clay plain

Comments: stones throughout pit, resurvey.
faint mottles at 30 - 50 cm.

Slope: level

Sample No.	Horizon	Depth (cm)	Colour	Sand (%)	Silt (%)	Clay (%)	pH (H ₂ O)	pH (CaCl ₂)	Organic C (%)	Total Nitrogen (mg/g)	Extr. S (ug/g)	Extr. SO ₄ (ug/g)	Avail. P (ug/g)	Total P (ug/g)	Avail. Al (ug/g)
17429	Ah	0-10	10YR 3/1				6.2	5.7							0.300
17428	Ah	0-10	10YR 3/1				6.2	5.6							0.310
17427	Ahe	25	10YR 3/1				6.5	5.7							0.090
17426	Ahe	25	10YR 3/1				6.8	6.1							0.080
17425	Bt	45	10YR 3/3				6.3	5.6							0.110
17424	Bt	45	10YR 3/3				6.7	6.2							0.080

SOIL PROFILE INFORMATION (cont'd.)

Site: Gray's Creek Conservation Area

Classification: Orthic Gray Brown Luvisol

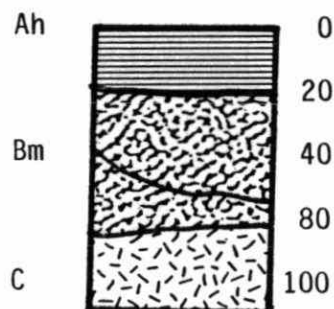
Sample No.	Horizon	Exchangeable Cations (ug/g)				C.E.C. (m.e.) 100g	Pyrophosphate (%)			Dithionite (%)			CaCO ₃ (%)	Zn	Metals (ug/g)		
		Ca	Mg	K	Al		Fe	Al	Mn	Fe	Al	Mn			Cu	Ni	Pb
17429	Ah	2640	410	250		17.13							1				
17428	Ah	2960	450	230		19.02							1				
17427	Ahe	2000	240	59		12.10							3				
17426	Ahe	1660	260	51		10.52							1				
17425	Bt	1930	230	51		11.64							2				
17424	Bt	1540	240	51		9.80							2				

SOIL PROFILE INFORMATION

Horizon Depth

Site: Golden Lake, Eganville

Date: 80/07/23



Location Code: 4001071

Parent Material: fluvial sand

UTM: 18T 328900.0 5048350.0

Vegetation: pine

Classification: Orthic Melanic Brunisol

Landform: spillway

Comments:

Slope: level

Sample No.	Horizon	Depth (cm)	Colour	Sand (%)	Silt (%)	Clay (%)	pH (H ₂ O)	pH (CaCl ₂)	Organic C (%)	Total Nitrogen (mg/g)	Extr. S (ug/g)	Extr. SO ₄ (ug/g)	Avail. P (ug/g)	Total P (ug/g)	Avail. Al (ug/g)
9556	Ah	0-20	5YR 3/2	92	3	5	6.53	5.42	1.01	0.53		4.9		580	
9557	Ah	0-20	5YR 3/2	93	4	3	6.31	5.27	0.97	0.60		4.5		670	
9554	Bm	30	5YR 4/6	90	3	7	5.57	5.60	0.15	0.23		3.8		530	
9555	Bm	30	5YR 4/6	91	2	7	6.58	5.56	0.18	0.11		2.8		390	
9552	Bm	45	5YR 5/6	91	1	9	6.67	5.72	0.17	0.13		3.3		600	
9553	Bm	45	5YR 5/6	93	0	7	6.78	5.72	0.13	0.13		2.2		560	
9550	Bm ₂	60	7.5YR 4/4	93	1	6	6.82	5.82	0.13	0.10		2.7		470	
9551	Bm ₂	60	7.5YR 4/4	93	1	6	6.55	5.71	0.05	0.13		2.7		540	
9548	Bm ₃	75	5YR 4/6	95	0	6	6.72	5.74	0.05	0.13		2.6		440	
9549	Bm ₃	75	5YR 4/6	92	1	7	6.73	5.73	0.03	0.10		2.2		590	
9546	C	90	10YR 5/6	90	0	9	6.88	5.96	0.11	0.13		1.1		610	
9547	Ck	90	10YR 5/6	94	0	6	6.80	5.88	0.05	0.12		1.2		440	

SOIL PROFILE INFORMATION (cont'd.)

Site: Golden Lake, Eganville

Classification: Orthic Melanic Brunisol

Sample No.	Horizon	Exchangeable Cations (ug/g)				C.E.C. (m.e.) 100g	Pyrophosphate (%)			Dithionite (%)			CaCO ₃ (%)	Zn	Metals (ug/g)		
		Ca	Mg	K	Al		Fe	Al	Mn	Fe	Al	Mn			Cu	Ni	Pb
9556	Ah	813	112.0	39	4	5.10	0.04	0.06	0.0120	0.49	0.19	0.065	2	60	5.0	60.0	4.4
9557	Ah	431	53.0	152	6	3.01	0.03	0.05	0.0068	0.48	0.18	0.061	2	66	4.7	5.7	3.9
9554	Bm	154	18.4	20		0.97	0.05	0.07	0.0051	0.52	0.20	0.024	1	54	8.3	140.0	1.4
9555	Bm	429	16.4	26		0.84	0.03	0.08	0.0038	0.45	0.16	0.019	3	51	7.4	84.0	1.5
9552	Bm	113	10.6	20		0.69	0.03	0.06	0.0045	0.49	0.14	0.021	4	42	12.0	190.0	1.6
9553	Bm	113	12.5	12		0.69	0.04	0.04	0.0042	0.50	0.14	0.021	2	37	11.0	150.0	1.6
9550	Bm ₂	145	12.5	12		0.86	0.03	0.03	0.0038	0.38	0.07	0.026	2	39	12.0	130.0	1.5
9551	Bm ₂	137	12.5	12		0.82	0.06	0.05	0.0075	0.49	0.11	0.029	2	39	13.0	260.0	1.2
9548	Bm ₃	129	10.6	10		0.75	0.04	0.03	0.0047	0.45	0.08	0.039	0	39	13.0	140.0	2.0
9549	Bm ₃	113	8.7	10		0.65	0.05	0.04	0.0058	0.42	0.08	0.030	1	39	13.0	180.0	1.2
9546	C	154	8.7	17		0.88	0.02	0.01	0.0020	0.29	0.05	0.017	2	36	11.0	69.0	1.3
9547	Ck	162	10.6	15		0.93	0.03	0.02	0.0041	0.29	0.06	0.018	6	31	10.0	170.0	1.2

SOIL PROFILE INFORMATION

Horizon Depth

Site: Carillon Provincial Park

Date: 81/07/13

Ah

0

Location Code: 4001180

Parent Material: lacustrine clay/till

Bkgj

20

UTM: 18T 544650.0 5044650.0

Vegetation: cedar, beech, maple

40

Classification: Gleyed Melanic Brunisol

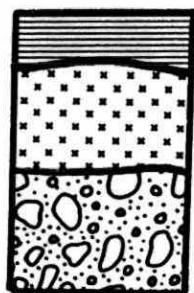
Ck

60

Landform: clay plain/till plain

Comments: some faint mottling at 30 cm.

Slope: level



Sample No.	Horizon	Depth (cm)	Colour	Sand (%)	Silt (%)	Clay (%)	pH (H ₂ O)	pH (CaCl ₂)	Organic C (%)	Total Nitrogen (mg/g)	Extr. S (ug/g)	Extr. SO ₄ (ug/g)	Avail. P (ug/g)	Total P (ug/g)	Avail. Al (ug/g)
17435	Ah	0-20	10YR 4/1	32	20	48	6.4	5.9	5	3.9			3		0.082
17434	Ah	0-20	10YR 4/1	30	19	50	6.2	5.8	5	4.1			3		0.110
17433	Bkgj	20-30	10YR 3/2	42	17	41	7.4	6.8	2	2.2			3		0.080
17432	Bkgj	20-30	10YR 3/2	36	20	44	7.4	6.8	2	1.8			3		0.080
17412	C	50	10YR 4/4	41	24	35	7.3	6.4	2	1.5			3		0.080
17410	Ck	50	10YR 4/4	42	23	35	7.3	6.5	4	1.4			3		0.100

SOIL PROFILE INFORMATION (cont'd.)

Site: Carillon Provincial Park

Classification: Gleyed Melanic Brunisol

Sample No.	Horizon	Exchangeable Cations (ug/g)				C.E.C. (m.e.) 100g	Pyrophosphate (%)			Dithionite (%)			CaCO ₃ (%)	Zn	Metals (ug/g)		
		Ca	Mg	K	Al		Fe	Al	Mn	Fe	Al	Mn			Cu	Ni	Pb
17435	Ah	2620	460	170		17.21	0.170	0.084	0.0900	2.100	0.240	0.2100	1	99	24	32	33
17434	Ah	2460	460	180		16.44	0.160	0.079	0.0790	2.100	0.220	0.2000	2	100	26	35	34
17433	Bkgj	2300	440	47		15.15	0.100	0.060	0.0300	2.400	0.220	0.2200	6	100	27	35	19
17432	Bkgj	2020	440	47		13.72	0.100	0.057	0.0280	2.400	0.230	0.2200	9	93	25	35	17
17412	C	1820	400	39		12.39	0.150	0.071	0.0290	2.800	0.260	0.2000	2	87	31	40	21
17410	Ck	2080	420	39		13.83	0.130	0.062	0.0300	2.700	0.260	0.2200	5	71	23	27	15

SOIL PROFILE INFORMATION

Horizon	Depth	Site: Mill Pond Conservation Area	Date: 80/10/07
Ah	0	Location Code: 4001116	Parent Material: sandy till
Bf	20	UTM: 18T 405900.0 4958900.0	Vegetation: beech, white birch, white pine, ironwood, sugar maple
Bm	40	Classification: Sombric Humo-Ferric Podzol	
Cgj	60	Landform: shallow till and rock ridges	Comments: very stoney, faint mottles (5YR 3/4) in C, irregular, discontinuous Ae
		Slope: level	

Sample No.	Horizon	Depth (cm)	Colour	Sand (%)	Silt (%)	Clay (%)	pH (H ₂ O)	pH (CaCl ₂)	Organic C (%)	Total Nitrogen (mg/g)	Extr. S (ug/g)	Extr. SO ₄ (ug/g)	Avail. P (ug/g)	Total P (ug/g)	Avail. Al (ug/g)
9946	Ah	0-10	10YR 3/1	67	25	8	5.63	5.08	5.51	3.73		20.0		410	
9947	Ah	0-10	10YR 3/1	57	36	7	6.17	5.28	2.98	2.09		6.2		300	
9945	Ae	10-17	5YR 7/1	64	29	7	5.89	4.82	0.82	0.48		2.1		150	
9943	Bf	30	10YR 5/6				6.15	4.97	1.17	0.52		4.3		230	
9944	Bf	30	10YR 5/6	57	32	10	5.77	4.94	1.22	0.62		3.6		280	
9941	Bm	50	10YR 6/6	58	32	10	6.13	5.04	0.51	0.30		3.4		410	
9942	Bm	50	10YR 6/6	57	33	10	6.14	5.08	0.41	0.26		3.7		380	
9939	Cgj	60	10YR 7/4	62	28	10	6.44	5.39	0.11	0.19		2.1		300	
9940	Cgj	61	10YR 7/4	61	29	10	6.43	5.36	0.13	0.09		2.4		320	

SOIL PROFILE INFORMATION (cont'd.)

Site: Mill Pond Conservation Area

Classification: Sombric Humo-Ferric Podzol

Sample No.	Horizon	Exchangeable Cations (ug/g)				C.E.C. (m.e.) 100g	Pyrophosphate (%)			Dithionite (%)			CaCO ₃ (%)	Metals (ug/g)			
		Ca	Mg	K	Al		Fe	Al	Mn	Fe	Al	Mn		Zn	Cu	Ni	Pb
9946	Ah	1466	156	87	8.0	8.88	0.16	0.06	0.0485	0.46	0.08	0.040	5	87	40	5.6	35.0
9947	Ah	1230	147	65	6.0	7.54	0.13	0.06	0.382	0.49	0.08	0.043	4	59	13	86.0	14.0
9945	Ae	308	45	32	59.0	2.57	0.10	0.04	0.0052	0.45	0.06	0.018		32	29	3.0	5.5
9943	Bf	375	55	38	14.0	2.55	0.27	0.24	0.0020	0.96	0.30	0.009		77	36	11.0	7.9
9944	Bf	387	64	32	16.0	2.68	0.23	0.19	0.0021	1.00	0.25	0.018		81	30	8.7	3.9
9941	Bm	297	50	49	2.0	2.03	0.15	0.11	0.0073	0.69	0.17	0.020	1	34	26	12.0	3.5
9942	Bm	308	59	49	5.0	2.18	0.14	0.10	0.0064	0.69	0.16	0.026	2	29	27	12.0	8.5
9939	Cgj	433	64	60	1.5	2.84	0.07	0.04	0.0069	0.67	0.10	0.041	1	26	27	9.2	2.0
9940	Cgj	308	83	65	1.0	2.37	0.08	0.04	0.0069	0.70	0.10	0.049	2	26	39	11.0	6.2

SOIL PROFILE INFORMATION

Horizon	Depth	Site: Mill Pond Conservation Area	Date: 81/10/21
Ah	0	Location Code: 4001116	Parent Material: sandy till
Ae	20	UTM: 18T 405900.0 4958900.0	Vegetation: sugar maples, white pine, iron-wood, white birch
Bf	40	Classification: Sombric Humo-Ferric Podzol	
Bm	60	Landform: shallow till and rock ridge	Comments: slightly stoney, irregular dis-continuous Ae, 2% mottles in C (5YR 4/4), resurvey
Cgj	80	Slope: simple, class 2, nearly level	

Sample No.	Horizon	Depth (cm)	Colour	Sand (%)	Silt (%)	Clay (%)	pH (H ₂ O)	pH (CaCl ₂)	Organic C (%)	Total Nitrogen (mg/g)	Extr. S (ug/g)	Extr. SO ₄ (ug/g)	Avail. P (ug/g)	Total P (ug/g)	Avail. Al (ug/g)
17880	Ah	0-10	10YR 3/1	68	24	8	5.3	4.6	3	2.5			5		2.10
17879	Ah	0-10	10YR 3/1	69	24	8	5.2	4.5	3	2.5			3		2.50
17878	Ae	10-17	10YR 5/1	78	23	0	5.3	4.4	1	0.6			3		0.99
17877	Ae	10-17	10YR 5/1	72	23	5	5.3	4.3	1	0.6			3		1.50
17876	Bf	17-20	7.5YR 5/6	73	22	5	5.9	4.9	1	0.5			3		1.20
17875	Bf	17-20	7.5YR 5/6	70	24	6	5.8	4.9	1	0.4			3		1.20
17874	Bm	17-40	10YR 5/6	72	21	6	5.8	5.0	1	0.3			3		1.10
17873	Bm	26-40	10YR 5/6	72	22	6	5.8	4.9	1	0.3			3		1.10
17872	Cgj	40-65	10YR 6/6	82	13	5	6.0	5.2	1	0.1			3		0.40
17871	Cgj	40-65	10YR 6/6	78	17	5	6.0	5.1	1	0.2			3		0.48

SOIL PROFILE INFORMATION (cont'd.)

Site: Mill Pond Conservation Area

Classification: Sombric Humo-Ferric Podzol

Sample No.	Horizon	Exchangeable Cations (ug/g)				C.E.C. (m.e.) 100g	Pyrophosphate (%)			Dithionite (%)			CaCO ₃ (%)	Metals (ug/g)			
		Ca	Mg	K	Al		Fe	Al	Mn	Fe	Al	Mn		Zn	Cu	Ni	Pb
17880	Ah	1710	160	100	0	10.08											
17879	Ah	840	120	95	5	5.47											
17878	Ae	430	45	34	5	2.64											
17877	Ae	370	40	34	5	2.30											
17876	Bf	370	40	34	16	2.41											
17875	Bf	380	40	35	8	2.39											
17874	Bm	210	22	35	16	1.47							2				
17873	Bm	200	27	50	16	1.52											
17872	Cgj	155	20	34	0	1.02							1				
17871	Cgj	290	36	39	11	1.95							2				

SOIL PROFILE INFORMATION

Horizon	Depth	Site: North Beach Provincial Park	Date: 81/06/02
Ck	0	Location Code: 4001158	Parent Material: sand dunes, fluvial deposit
	20	UTM: 18T 297450.0 4869700.0	Vegetation: cedar
	40	Classification: Orthic Regosol	
	60	Landform: sand plain	Comments:
		Slope: gentle slopes	

Sample No.	Horizon	Depth (cm)	Colour	Sand (%)	Silt (%)	Clay (%)	pH (H ₂ O)	pH (CaCl ₂)	Organic C (%)	Total Nitrogen (mg/g)	Extr. S (ug/g)	Extr. SO ₄ (ug/g)	Avail. P (ug/g)	Total P (ug/g)	Avail. Al (ug/g)
18075	Ck	0-25	10YR 5/3	96	0	4	8.5	7.4	1	0.1			3		0.080
18074	Ck	0-25	10YR 5/3	95	0	5	8.3	7.3	1	0.2			3		0.080
18077	Ck	25-50	10YR 5/3	96	0	8	8.9	7.7	1	0.7			3		0.080
18076	Ck	25-50	10YR 5/3	96	0	5	9.0	7.8	1	0.1			3		0.140

SOIL PROFILE INFORMATION (cont'd.)

Site: North Beach Provincial Park

Classification: Orthic Regosol

Sample No.	Horizon	Exchangeable Cations (ug/g)				C.E.C. (m.e.) 100g	Pyrophosphate (%)			Dithionite (%)			CaCO ₃ (%)	Metals (ug/g)			
		Ca	Mg	K	Al		Fe	Al	Mn	Fe	Al	Mn		Zn	Cu	Ni	Pb
18075	Ck	160	1	8		0.80	0.002	0.002	0.0010	0.063	0.009	0.0032	20	6.3	1.0	2	3
18074	Ck	150	1	7		0.75	0.003	0.002	0.0014	0.300	0.014	0.0032	22	28.0	1.8	2	3
18077	Ck	250	4	12		1.30	0.003	0.002	0.0010	0.200	0.009	0.0029	21	10.0	1.2	2	3
18076	Ck	290	7	11		1.52	0.005	0.004	0.0015	0.380	0.011	0.0039	18	25.0	2.2	2	3

SOIL PROFILE INFORMATION

Horizon Depth

Site: McCauley Mountain Conservation Area

Date: 81/06/02

Ah 0

Location Code: 4001159

Parent Material: till

Bmgj 20

UTM: 18T 329050.0 4873000.0

Vegetation: mixed forest

Bmgj 40

Classification: Gleyed Melanic Brunisol

Ck 60

Landform: limestone plain

Comments: faint mottling in Bmgj

Slope: level

Sample No.	Horizon	Depth (cm)	Colour	Sand (%)	Silt (%)	Clay (%)	pH (H ₂ O)	pH (CaCl ₂)	Organic C (%)	Total Nitrogen (mg/g)	Extr. S (ug/g)	Extr. SO ₄ (ug/g)	Avail. P (ug/g)	Total P (ug/g)	Avail. Al (ug/g)
18079	Ah	0-17	10YR 3/3	52	20	28	7.5	7.0	2	1.7			3		0.080
18080	Ah	0-17	10YR 3/3	52	18	29	7.5	7.0	2	1.7			3		0.140
18081	Bmgj	17-30	10YR 3/4	52	18	31	7.7	7.1	1	0.7			3		0.080
18082	Bmgj	17-30	10YR 3/4	56	15	28	7.6	7.0	1	0.7			3		0.080
18083	Ck	30-50	10YR 5/4	65	17	19	8.0	7.4	1	0.5			3		0.080
18084	Ck	30-50	10YR 5/4	63	14	23	8.0	7.6	1	0.4			3		0.080

SOIL PROFILE INFORMATION (cont'd.)

Site: McCauley Conservation Area

Classification: Gleyed Melanic Brunisol

Sample No.	Horizon	Exchangeable Cations (ug/g)				C.E.C. (m.e.) 100g	Pyrophosphate (%)			Dithionite (%)			CaCO ₃ (%)	Metals (ug/g)			
		Ca	Mg	K	Al		Fe	Al	Mn	Fe	Al	Mn		Zn	Cu	Ni	Pb
18079	Ah	2580	54	60		13.50	0.090	0.057	0.0120	0.820	0.160	0.0230	2	58	7.9	10	12.0
18080	Ah	2090	54	63		11.06	0.089	0.054	0.0094	0.880	0.170	0.0220	2	59	8.0	11	6.5
18081	Bmgj	1600	47	55		8.54	0.110	0.063	0.0058	0.850	0.170	0.0180	2	43	10.0	13	3.0
18082	Bmgj	1710	50	60		9.11	0.093	0.056	0.0040	0.740	0.140	0.0120	2	38	7.9	11	4.1
18083	Ck	950	22	41		5.04	0.054	0.040	0.0026	0.640	0.130	0.0300	8	32	10.0	11	3.0
18084	Ck	1060	22	41		5.58	0.038	0.030	0.0014	0.500	0.110	0.0270	9	27	9.3	10	3.0

SOIL PROFILE INFORMATION

Horizon Depth

Site: Railton

Date: 81/06/03

Ah 0

Location Code: 4001160

Parent Material: till

Bfj 20

UTM: 18T 377350.0 4915450.0

Vegetation: beech, grasses

40

Classification: Orthic Sombric Brunisol

Landform: limestone till plain

Comments: near APIOS precipitation collector

C 60

Slope: level

Sample No.	Horizon	Depth (cm)	Colour	Sand (%)	Silt (%)	Clay (%)	pH (H ₂ O)	pH (CaCl ₂)	Organic C (%)	Total Nitrogen (mg/g)	Extr. S (ug/g)	Extr. SO ₄ (ug/g)	Avail. P (ug/g)	Total P (ug/g)	Avail. Al (ug/g)
18073	Ah	0-20	10YR 3/2	54	29	17	4.9	4.2	2	2.6			7		6.30
18072	Ah	0-20	10YR 3/2	47	27	26	5.7	5.1	3	3.6			5		1.40
18071	Bfj	40-60	10YR 5/6	53	33	15	5.1	4.3	2	0.9			3		5.70
18070	Bfj	40-60	10YR 5/6	55	30	14	5.1	4.3	1	0.9			5		6.70
18069	C	40-60	10YR 4/4	56	30	14	5.3	4.4	1	0.4			5		0.98
18068	C	40-60	10YR 4/4	63	25	12	5.2	4.4	1	0.6			3		1.50

SOIL PROFILE INFORMATION (cont'd.)

Site: Railton

Classification: Orthic Sombric Brunisol

Sample No.	Horizon	Exchangeable Cations (ug/g)				C.E.C. (m.e.) 100g	Pyrophosphate (%)			Dithionite (%)			CaCO ₃ (%)	Metals (ug/g)			
		Ca	Mg	K	Al		Fe	Al	Mn	Fe	Al	Mn		Zn	Cu	Ni	Pb
18073	Ah	940	110	130	100	6.86	0.370	0.210	0.0020	0.860	0.230	0.0035		39	3.6	6.1	3.0
18072	Ah	1490	260	200	0	10.05	0.250	0.140	0.0061	0.580	0.160	0.0093	1	40	4.5	5.8	7.6
18071	Bfj	170	27	52	120	2.41	0.370	0.320	0.0028	0.980	0.380	0.0098		67	7.4	16.0	3.0
18070	Bfj	120	18	45	110	1.95	0.380	0.300	0.0027	0.980	0.360	0.0110		56	8.1	14.0	3.0
18069	C	530	100	45	52	4.12	0.130	0.095	0.0022	0.610	0.120	0.0310		32	7.7	14.0	3.0
18068	C	420	73	48	72	3.51	0.120	0.100	0.0022	0.690	0.140	0.0330		34	8.8	15.0	3.0

SOIL PROFILE INFORMATION

Horizon Depth

Site: Railton

Date: 81/06/03

Ah 0

Location Code: 4001161

Parent Material: till

20

UTM: 18T 373050.0 4914550.0

Vegetation: coniferous forest

Bm1 40

Classification: Orthic Melanic Brunisol

Landform: till plain and rock ridges

Comments: depth to bedrock 60 cm.
near A.P.I.O.S. precipitation
collector

Bm2/C 60

Slope: nearly level

Sample No.	Horizon	Depth (cm)	Colour	Sand (%)	Silt (%)	Clay (%)	pH (H ₂ O)	pH (CaCl ₂)	Organic C (%)	Total Nitrogen (mg/g)	Extr. S (ug/g)	Extr. SO ₄ (ug/g)	Avail. P (ug/g)	Total P (ug/g)	Avail. Al (ug/g)
18090	Ah	0-25	5YR 2.5/2	65	14	20	7.1	6.6	4	2.4			3		0.100
18089	Ah	0-25	5YR 2.5/2	58	21	21	7.0	6.5	3	2.3			3		0.110
18088	Bm1	25-40	5YR 3/4	71	10	19	7.4	6.8	1	0.9			3		0.080
18087	Bm1	25-40	5YR 3/4	74	10	16	7.6	6.9	1	0.6			3		0.080
18086	Bm2/C	40-60	5YR 3/4	76	10	15	7.5	6.9	1	0.7			3		0.080
18085	Bm2/C	40-60	5YR 3/4	74	12	14	7.5	7.0	1	0.7			3		0.080

SOIL PROFILE INFORMATION (cont'd.)

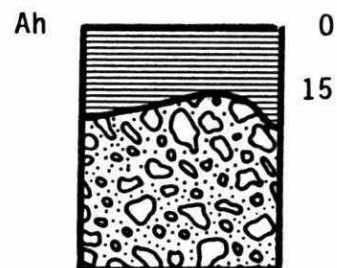
Site: Railton

Classification: Orthic Melanic Brunisol

Sample No.	Horizon	Exchangeable Cations (ug/g)				C.E.C. (m.e.) 100g	Pyrophosphate (%)			Dithionite (%)			CaCO ₃ (%)	Metals (ug/g)			
		Ca	Mg	K	Al		Fe	Al	Mn	Fe	Al	Mn		Zn	Cu	Ni	Pb
18090	Ah	1970	82	62		10.69	0.150	0.110	0.0480	1.300	0.240	0.1100	2	80	15	18	19.0
18089	Ah	1750	92	62		9.66	0.170	0.110	0.0420	1.100	0.220	0.0660	1	74	13	16	16.0
18088	Bm1	1200	45	36		6.47	0.120	0.082	0.0190	0.980	0.170	0.0760	1	46	10	15	3.5
18087	Bm1	1070	31	30		5.66	0.130	0.088	0.0200	1.300	0.240	0.1400	2	46	18	24	4.5
18086	Bm2/C	1280	41	41		6.81	0.073	0.056	0.0098	1.200	0.220	0.1400	1	40	16	20	3.0
18085	Bm2/C	1170	41	43		6.27	0.077	0.056	0.0100	1.300	0.240	0.1600	1	39	17	20	3.0

SOIL PROFILE INFORMATION

Horizon Depth



Site: Whitman Creek

Date: 81/06/03

Location Code: 4001162

Parent Material: limestone bedrock

UTM: 18T 352650.0 4926450.0

Vegetation: maple

Classification: Unclassified

Landform: limestone plain

Comments: depth to bedrock 15 cm.
near APIOS precipitation collector

Slope: level

Sample No.	Horizon	Depth (cm)	Colour	Sand (%)	Silt (%)	Clay (%)	pH (H ₂ O)	pH (CaCl ₂)	Organic C (%)	Total Nitrogen (mg/g)	Extr. S (ug/g)	Extr. SO ₄ (ug/g)	Avail. P (ug/g)	Total P (ug/g)	Avail. Al (ug/g)
18092	Ah	0-15		54	26	21	7.4	7.0	4	2.6			20		0.270
18091	Ah	0-15		56	23	22	7.4	7.0	4	2.8			19		0.220

SOIL PROFILE INFORMATION (cont'd.)

Site: Whitman Creek

Classification: Unclassified

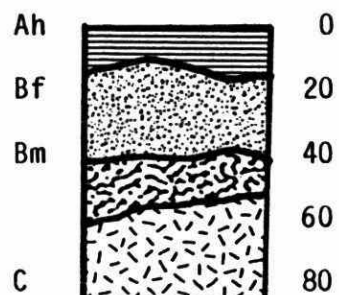
Sample No.	Horizon	Exchangeable Cations (ug/g)				C.E.C. (m.e.) 100g	Pyrophosphate (%)			Dithionite (%)			CaCO ₃ (%)	Metals (ug/g)			
		Ca	Mg	K	Al		Fe	Al	Mn	Fe	Al	Mn		Zn	Cu	Ni	Pb
18092	Ah	3080	210	230		17.62	0.170	0.074	0.0240	0.680	0.100	0.0440	3	66	6.4	7.3	8.7
18091	Ah	3300	220	220		18.81	0.160	0.073	0.0280	0.700	0.110	0.0500	2	72	7.4	7.7	8.1

SOIL PROFILE INFORMATION

Horizon Depth

Site: Vanderwater Conservation Area

Date: 81/06/09



Location Code: 4001172

Parent Material: till

UTM: 18T 315500.0 4916650.0

Vegetation: pine forest

Classification: Orthic Sombric Brunisol

Landform: moraine

Comments: some large stones

Slope: nearly level

Sample No.	Horizon	Depth (cm)	Colour	Sand (%)	Silt (%)	Clay (%)	pH (H ₂ O)	pH (CaCl ₂)	Organic C (%)	Total Nitrogen (mg/g)	Extr. S (ug/g)	Extr. SO ₄ (ug/g)	Avail. P (ug/g)	Total P (ug/g)	Avail. Al (ug/g)
18105	Ah	0-17	5YR 3/1	79	11	9	5.7	5.0	3	1.6			3		0.50
18104	Ah	0-17	5YR 3/1	77	9	14	6.1	5.4	3	2.0			3		0.44
18103	Bf	17-40	7.5YR 4/6	79	15	5	6.3	5.5	1	0.6			3		0.32
18102	Bm	17-40	7.5YR 4/6	87	3	11	6.3	5.5	1	0.6			3		0.21
18101	Bm	40-55	7.5YR 5/4	90	5	4	6.4	5.7	1	0.3			3		0.27
18100	Bm	40-55	7.5YR 5/4	83	13	4	6.4	5.5	1	0.3			3		0.25
18099	C	55-70	7.5YR 4/4	83	12	4	6.4	5.7	1	0.3			3		0.53
18098	C	55-70	7.5YR 4/4	82	12	6	6.6	5.8	1	0.3			3		0.10

SOIL PROFILE INFORMATION (cont'd.)

Site: Vanderwater Conservation Area

Classification: Orthic Sombric Brunisol

Sample No.	Horizon	Exchangeable Cations (ug/g)				C.E.C. (m.e.) 100g	Pyrophosphate (%)			Dithionite (%)			CaCO ₃ (%)	Zn	Metals (ug/g)			
		Ca	Mg	K	Al		Fe	Al	Mn	Fe	Al	Mn			Cu	Ni	Pb	
18105	Ah	660	38	19	5	3.68	0.210	0.160	0.0220	0.870	0.200	0.0340	1	52	3.9	8.0	5.8	
18104	Ah	930	61	34	1	5.23	0.240	0.160	0.0320	0.770	0.170	0.0370	1	59	4.5	7.8	11.0	
18103	Bf	600	11	5		3.09	0.300	0.250	0.0021	0.890	0.330	0.0084	1	43	3.2	10.0	3.0	
18102	Bm	540	9	5		2.80	0.190	0.180	0.0014	0.720	0.260	0.0063	1	35	2.4	7.7	3.0	
18101	Bm	430	9	5		2.23	0.150	0.170	0.0024	0.600	0.220	0.0110	1	30	1.9	9.1	3.0	
18100	Bm	410	7	5		2.13	0.170	0.200	0.0047	0.620	0.210	0.0120	2	22	2.3	8.8	3.0	
18099	C	370	5	6		1.9	0.098	0.120	0.0040	0.460	0.130	0.0210	1	22	3.7	9.5	3.0	
18098	C	550	17	11		2.9	0.091	0.110	0.0050	0.550	0.130	0.0310	1	22	3.2	9.5	3.0	

SOIL PROFILE INFORMATION

Horizon Depth

Site: O'Hara Mill Conservation Area

Date: 81/06/09

Ah 0

Location Code: 4001177

Parent Material: till

Bfj 20

UTM: 18T 295950.0 4932150.0

Vegetation: maple, hemlock and
coniferous trees

40

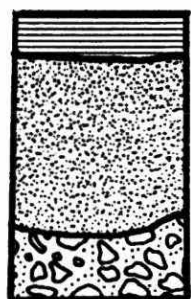
Classification: Orthic Sombric Brunisol

Landform: shallow till and rock ridges

Comments: earthworms present
shale in C horizon

C 60

Slope: very gentle slopes



Sample No.	Horizon	Depth (cm)	Colour	Sand (%)	Silt (%)	Clay (%)	pH (H ₂ O)	pH (CaCl ₂)	Organic C (%)	Total Nitrogen (mg/g)	Extr. S (ug/g)	Extr. SO ₄ (ug/g)	Avail. P (ug/g)	Total P (ug/g)	Avail. Al (ug/g)
18097	Ah	0-10	10YR 3/2	35	43	22	6.0	5.6	2	3.2			3		0.25
18096	Bfj	10-40	7.5YR 4/4	39	55	6	5.6	4.8	1	0.5			3		0.80
18095	Bfj	10-40	7.5YR 4/4	42	50	8	5.5	4.7	1	0.5			3		0.97
18094	C	40-60	10YR 4/6	55	38	7	5.8	4.9	1	0.3			3		0.17
18093	C	40-60	10YR 4/6	48	46	7	5.8	4.9	1	0.3			3		0.25

SOIL PROFILE INFORMATION (cont'd.)

Site: O'Hara Mill Conservation Area

Classification: Orthic Sombric Brunisol

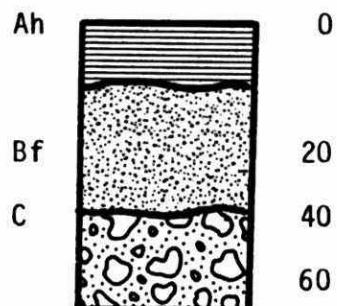
Sample No.	Horizon	Exchangeable Cations (ug/g)				C.E.C. (m.e.) 100g	Pyrophosphate (%)			Dithionite (%)			CaCO ₃ (%)	Metals (ug/g)			
		Ca	Mg	K	Al		Fe	Al	Mn	Fe	Al	Mn		Zn	Cu	Ni	Pb
18097	Ah	1970	220	310		12.40	0.180	0.150	0.0170	0.840	0.220	0.0260	2	58	5.3	7.0	3
18096	Bfj	440	34	100	24	2.94	0.250	0.140	0.0059	1.000	0.180	0.0270		58	6.9	6.0	3
18095	Bfj	360	31	120	33	2.71	0.210	0.140	0.0047	0.920	0.180	0.0210		51	6.4	6.5	3
18094	C	550	52	38	9	3.37	0.100	0.073	0.0018	0.560	0.090	0.0280		30	6.5	9.5	3
18093	C	590	50	46	11	3.56	0.120	0.075	0.0023	0.760	0.100	0.0360		40	9.0	9.9	3

SOIL PROFILE INFORMATION

Horizon Depth

Site: Sharbot Lake Provincial Park

Date: 81/06/11



Location Code: 4001178

Parent Material: sandy till

UTM: 18T 363650.0 4959650.0

Vegetation: maple, oak

Classification: Sombric Humo-Ferric Podzol

Landform: shallow till and rock ridge

Comments: earthworms throughout profile
depth to granitic bedrock 70 cm,
evidence of Ae.

Slope: very strong slopes

Sample No.	Horizon	Depth (cm)	Colour	Sand (%)	Silt (%)	Clay (%)	pH (H ₂ O)	pH (CaCl ₂)	Organic C (%)	Total Nitrogen (mg/g)	Extr. S (ug/g)	Extr. SO ₄ (ug/g)	Avail. P (ug/g)	Total P (ug/g)	Avail. Al (ug/g)
18129	Ah	0-10	5YR 3/1	68	22	10	5.3	4.5	4	2.5			18		1.700
18128	Ah	0-10	5YR 3/1	70	22	7	5.4	4.5	2	2.5			12		1.300
18127	Bfj	10-40	5YR 4/4	78	19	3	5.4	4.5	1	0.8			8		2.100
18126	Bf	10-40	5YR 4/4	79	18	3	5.5	4.6	1	0.7			3		2.300
18125	C	40-60	10YR 5/6	75	14	11	5.5	4.6	1	0.3			4		1.800
18124	C	40-60	10YR 5/6	83	15	2	5.6	4.6	1	0.3			3		0.200

SOIL PROFILE INFORMATION (cont'd.)

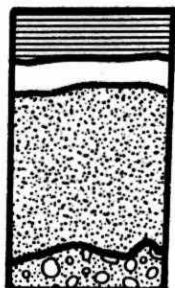
Site: Sharbot Lake Provincial Park

Classification: Sombric Humo-Ferric Podzol

Sample No.	Horizon	Exchangeable Cations (ug/g)				C.E.C. (m.e.) 100g	Pyrophosphate (%)			Dithionite (%)			CaCO ₃ (%)	Metals (ug/g)			
		Ca	Mg	K	Al		Fe	Al	Mn	Fe	Al	Mn		Zn	Cu	Ni	Pb
18129	Ah	940	99	83	11	5.82	0.210	0.180	0.0480	0.890	0.250	0.1000		88	7.1	10	6.5
18128	Ah	970	100	66	11	5.91	0.250	0.180	0.0400	1.000	0.320	0.0900		100	6.6	11	8.6
18127	Bfj	150	18	6	16	1.09	0.160	0.180	0.0048	1.100	0.400	0.0140		74	12.0	18	3.0
18126	Bf	160	18	5	18	1.16	0.200	0.240	0.0056	1.100	0.390	0.0160		71	10.0	15	3.0
18125	C	180	20	9	16	1.22	0.160	0.170	0.0081	0.890	0.220	0.0250		50	14.0	15	3.0
18124	C	180	13	6	14	1.14	0.150	0.150	0.0080	0.950	0.210	0.0300		53	14.0	15	3.0

SOIL PROFILE INFORMATION

Horizon	Depth	Site: Silver Lake Provincial Park	Date: 81/06/09
Ah	0	Location Code: 4001179	Parent Material: sandy till
Ae	20	UTM: 18T 375300.4 4965350.0	Vegetation: maple, hemlock, grasses, mosses
Bf	40	Classification: Sombric Humo-Ferric Podzol	
C	60	Landform: shallow till and rock ridges	Comments: weathered granitic bedrock at 58 cm. earthworms throughout profile.
		Slope: very gentle slope	



Sample No.	Horizon	Depth (cm)	Colour	Sand (%)	Silt (%)	Clay (%)	pH (H ₂ O)	pH (CaCl ₂)	Organic C (%)	Total Nitrogen (mg/g)	Extr. S (ug/g)	Extr. SO ₄ (ug/g)	Avail. P (ug/g)	Total P (ug/g)	Avail. Al (ug/g)
18113	Ah	0-12	5YR 2.5/1	73	18	9	5.3	4.8	4	2.5			8		1.60
18112	Ah	0-12	5YR 2.5/1	64	25	11	5.2	4.7	4	3.0			9		2.10
18111	Ae	13-17	7.5YR 4/2	66	27	6	5.0	4.3	1	1.1			3		2.30
18110	Bfj	17-45	7.5YR 4/4	64	21	15	5.5	4.7	2	1.0			3		1.90
18109	Bf	17-45	7.5YR 4/4	71	23	6	5.5	4.7	2	0.8			3		1.60
18108	Bf	45-58	7.5YR 4/4	72	25	2	5.5	4.8	2	0.8			3		1.60
18107	Bf	45-58	7.5YR 4/4	69	28	3	5.6	4.8	1	0.7			3		1.50
18106	C	58+		89	7	5	5.6	4.6	1	0.2			3		2.50

SOIL PROFILE INFORMATION (cont'd.)

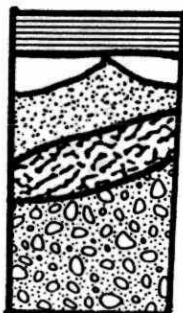
Site: Silver Lake Provincial Park

Classification: Sombric Humo-Ferric Podzol

Sample No.	Horizon	Exchangeable Cations (ug/g)				C.E.C. (m.e.) 100g	Pyrophosphate (%)			Dithionite (%)			CaCO ₃ (%)	Metals (ug/g)			
		Ca	Mg	K	Al		Fe	Al	Mn	Fe	Al	Mn		Zn	Cu	Ni	Pb
18113	Ah	2320	240	77	3	14.1	0.170	0.096	0.0190	0.780	0.130	0.0270		58	10.0	30	12.0
18112	Ah	3260	360	120	5	19.6	0.190	0.081	0.0130	0.600	0.120	0.0180		49	8.6	26	9.6
18111	Ae	990	120	75	12	6.26	0.260	0.120	0.0044	0.890	0.150	0.0089		49	8.1	27	3.0
18110	Bfj	670	100	56	16	4.47	0.400	0.300	0.0011	1.500	0.530	0.0056		99	21.0	92	3.0
18109	Bf	630	100	83	22	4.42	0.510	0.330	0.0011	1.600	0.520	0.0056		100	19.0	88	3.0
18108	Bf	710	110	46	22	4.74	0.680	0.640	0.0027	1.200	0.510	0.0063		66	23.0	89	3.0
18107	Bf	780	120	73	33	5.37	0.290	0.270	0.0011	1.100	0.440	0.0065		53	21.0	84	3.0
18106	C	850	190	120	42	6.45	0.310	0.190	0.0028	0.840	0.240	0.0110		47	12.0	110	3.0

SOIL PROFILE INFORMATION

Horizon	Depth	Site: Wilberforce Township - Pembroke	Date: 81/07/14
LFH	0	Location Code: 4001181	Parent Material: delatic sand
Ae	20	UTM: 18T 328400.0 5061400.0	Vegetation: red oak, white birch, red maple, white pine, white spruce
Bf	40	Classification: Orthic Humo-Ferric Podzol	
Bm	60	Landform: sand plain	Comments: moderately stoney (granitic) at 30-65 cm
C	80	Slope: very gentle slopes	



Sample No.	Horizon	Depth (cm)	Colour	Sand (%)	Silt (%)	Clay (%)	pH (H ₂ O)	pH (CaCl ₂)	Organic C (%)	Total Nitrogen (mg/g)	Extr. S (ug/g)	Extr. SO ₄ (ug/g)	Avail. P (ug/g)	Total P (ug/g)	Avail. Al (ug/g)
17445	LFH	0-10	10YR 2/1	69	19	12	4.1	3.4	9	6.8			28		17.0
17444	LFH	0-10	10YR 2/1				4.2	3.4	23	18.4			58		11.0
17443	Ae	10-15	10YR 6/2	80	17	3	4.5	3.5	1	0.4			3		4.7
17442	Ae	10-15	10YR 6/2	79	13	8	4.4	3.4	1	0.7			3		4.6
17441	Bf	15-25	7.5YR 4/6	91	1	8	5.2	4.4	2	0.9			3		4.4
17440	Bf	15-25	7.5YR 4/6	92	1	7	5.3	4.5	2	0.8			3		2.7
17439	Bm	30-40	10YR 4/6	92	1	7	5.3	4.6	2	0.5			3		2.4
17438	Bm	30-40	10YR 4/6	91	7	3	5.4	4.6	2	0.4			3		2.3
17437	C	40-65	10YR 5/8	88	5	7	5.2	4.6	1	0.4			15		2.1
17436	C	40-65	10YR 5/8	86	6	8	5.3	4.6	1	0.5			3		1.8

SOIL PROFILE INFORMATION (cont'd.)

Site: Wilberforce Township - Pembroke

Classification: Orthic Humo-Ferric Podzol

Sample No.	Horizon	Exchangeable Cations (ug/g)				C.E.C. (m.e.) 100g	Pyrophosphate (%)			Dithionite (%)			CaCO ₃ (%)	Metals (ug/g)			
		Ca	Mg	K	Al		Fe	Al	Mn	Fe	Al	Mn		Zn	Cu	Ni	Pb
17445	LFH	2620	260	350	44	16.80	0.150	0.082	0.0100	0.440	0.130	0.0100		51.0	7.2	7.0	47
17444	LFH	3530	410	420	23	22.19	0.140	0.095	0.0094	0.380	0.140	0.0099		64.0	10.0	10.0	98
17443	Ae	180	18	26	51	1.62	0.028	0.019	0.0001	0.170	0.026	0.0003		9.5	1.7	2.0	3
17442	Ae	290	33	29	64	2.44	0.056	0.030	0.0001	0.230	0.041	0.0006		8.5	1.6	2.0	3
17441	Bf	110	9	11	44	1.09	0.590	0.660	0.0008	1.500	0.990	0.0020		40.0	10.0	10.0	3
17440	Bf	63	6	8	13	0.52	0.250	0.410	0.0004	1.200	0.850	0.0013		37.0	11.0	10.0	3
17439	Bm	56	4	8	15	0.48	0.220	0.330	0.0007	0.940	0.720	0.0018		30.0	12.0	8.3	3
17438	Bm	44	4	7	11	0.38	0.160	0.290	0.0004	0.940	0.670	0.0010		26.0	11.0	8.8	3
17437	C	32	4	7	13	0.34	0.120	0.210	0.0003	1.400	0.560	0.0018		27.0	11.0	8.7	3
17436	C	32	4	7	8	0.29	0.120	0.250	0.0003	0.880	0.550	0.0018		27.0	14.0	10.0	3

SOIL PROFILE INFORMATION

Horizon	Depth	Site: Carson Lake Provincial Park	Date: 81/07/14
Ah	0	Location Code: 4001182	Parent Material: sandy till
Bf	20	UTM: 18T 285350.0 5042300.0	Vegetation: maple, beech, red pine
Bm	40	Classification: Gleyed Humo-Ferric Podzol	
IC	60	Landform: shallow till and rock ridges	Comments: many medium mottles at 70 cm
IICg	80	Slope: nearly level	mottle colour 10YR 6/8

Sample No.	Horizon	Depth (cm)	Colour	Sand (%)	Silt (%)	Clay (%)	pH (H ₂ O)	pH (CaCl ₂)	Organic C (%)	Total Nitrogen (mg/g)	Extr. S (ug/g)	Extr. SO ₄ (ug/g)	Avail. P (ug/g)	Total P (ug/g)	Avail. Al (ug/g)
17455	Ah	0-10	10YR 3/1	17	63	20	5.4	4.7	10	5.5			9		3.1
17454	Ah	0-10	10YR 3/1	18	62	20	5.4	4.7	3	5.1			9		2.6
17453	Bf	10-20	10YR 3/6	24	69	7	5.4	4.6	2	1.8			3		2.7
17452	Bf	10-20	10YR 3/6	21	73	6	5.4	4.6	2	2.1			3		3.6
17451	Bm	30-50	10YR 3/4	26	70	4	5.2	4.5	1	1.1			5		3.6
17450	Bm	30-50	10YR 3/4	32	64	4	5.2	4.5	1	1.0			6		3.9
17449	IC	50-70	10YR 3/4	37	60	3	5.2	4.5	1	0.6			3		3.7
17448	IC	50-70	10YR 3/4	45	52	3	5.3	4.5	1	0.5			3		3.4
17447	IICg	70-80	10YR 6/4	66	31	3	5.3	4.6	1	0.3			3		2.8
17446	IICg	70-80	10YR 6/4	68	29	3	5.3	4.6	1	0.3			3		2.4

SOIL PROFILE INFORMATION (cont'd.)

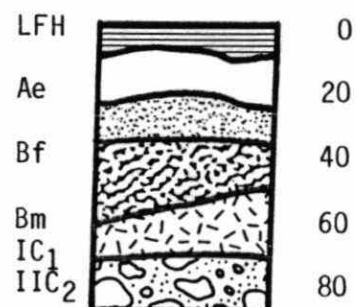
Site: Carson Lake Provincial Park

Classification: Gleyed Humo-Ferric Podzol

Sample No.	Horizon	Exchangeable Cations (ug/g)				C.E.C. (m.e.) 100g	Pyrophosphate (%)			Dithionite (%)			CaCO3 (%)	Metals (ug/g)			
		Ca	Mg	K	Al		Fe	Al	Mn	Fe	Al	Mn		Zn	Cu	Ni	Pb
17455	Ah	980	94	130	28	6.28	0.350	0.260	0.0300	0.710	0.400	0.0380		49	6.2	4.8	7.5
17454	Ah	1310	110	130	21	7.97	0.360	0.290	0.0300	0.740	0.450	0.0370		51	6.2	5.7	7.8
17453	Bf	250	15	41	34	1.79	0.410	0.440	0.0020	1.000	0.720	0.0028		47	7.2	6.6	3.0
17452	Bf	310	18	53	38	2.20	0.580	0.570	0.0021	1.100	0.720	0.0035		49	6.7	7.0	3.0
17451	Bm	150	9	23	33	1.21	0.180	0.200	0.0011	0.790	0.440	0.0025		38	9.2	8.3	3.0
17450	Bm	150	9	26	33	1.21	0.170	0.200	0.0013	0.800	0.450	0.0028		39	9.7	8.6	3.0
17449	IC	87	6	17	34	0.87	0.200	0.200	0.0004	0.610	0.330	0.0018		32	9.7	8.0	3.0
17448	IC	87	3	17	29	0.79	0.190	0.180	0.0004	0.580	0.310	0.0008		29	10.0	7.8	3.0
17447	IICg	71	3	8	19	0.59	0.150	0.150	0.0004	0.550	0.230	0.0005		26	10.0	6.2	3.0
17446	IICg	63	3	14	19	0.57	0.140	0.140	0.0004	0.550	0.240	0.0003		26	11.0	6.1	3.0

SOIL PROFILE INFORMATION

Horizon Depth



Site: Lake St. Peter Provincial Park

Date: 81/07/14

Location Code: 3001183

Parent Material: lacustrine gravel

UTM: 17T 733250.0 5022900.0

Vegetation: birch, maple, poplar

Classification: Orthic Humo-Ferric Podzol

Landform: lacustrine deposit

Comments: very stoney at 70 cm
(gravel lakebed)

Slope: level

Sample No.	Horizon	Depth (cm)	Colour	Sand (%)	Silt (%)	Clay (%)	pH (H ₂ O)	pH (CaCl ₂)	Organic C (%)	Total Nitrogen (mg/g)	Extr. S (ug/g)	Extr. SO ₄ (ug/g)	Avail. P (ug/g)	Total P (ug/g)	Avail. Al (ug/g)
17467	LFH	0-10	10YR 2/1	85	11	5	5.1	4.4	4	2.4			6		2.8
17466	LFH	0-10	10YR 2/1	80	13	7	5.1	4.4	6	3.0			6		4.9
17465	Ae	10-20	10YR 7/1	90	8	2	5.0	4.2	1	0.7			3		2.3
17464	Ae	10-20	10YR 7/1	88	8	4	4.9	4.0	2	0.8			5		3.0
17463	Bf	20-30	7.5YR 3/4	92	4	4	5.4	4.5	4	1.1			3		2.8
17462	Bf	20-30	7.5YR 3/4	90	6	4	5.4	4.5	5	1.2			3		3.8
17461	Bm	30-50	10YR 4/6	95	2	2	5.4	4.6	3	0.6			4		2.5
17460	Bm	30-50	10YR 4/6	98	0	2	5.4	4.7	2	0.3			3		1.2
17459	IC	50-70	10YR 4/6	98	0	2	5.5	4.8	1	0.2			3		1.1
17458	IC	50-70	10YR 4/6	98	0	2	5.4	4.7	1	0.2			3		1.2
17457	IIC	80	2.5YR 6/6	97	0	3	5.4	4.6	1	0.3			3		1.5
17456	IIC	80	2.5YR 6/6	97	0	2	5.3	4.6	1	0.4			3		1.7

SOIL PROFILE INFORMATION (cont'd.)

Site: Lake St. Peter Provincial Park

Classification: Orthic Humo-Ferric Podzol

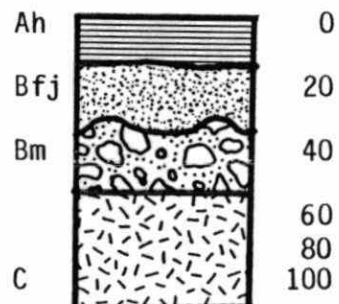
Sample No.	Horizon	Exchangeable Cations (ug/g)				C.E.C. (m.e.) 100g	Pyrophosphate (%)			Dithionite (%)			CaCO ₃ (%)	Zn	Metals (ug/g)		
		Ca	Mg	K	Al		Fe	Al	Mn	Fe	Al	Mn			Cu	Ni	Pb
17467	LFH	1710	120	170	6	9.96	0.17	0.073	0.0450	0.400	0.100	0.0630		69	5.7	4.0	25.0
17466	LFH	2970	170	260	13	17.01	0.16	0.076	0.0500	0.420	0.120	0.0770		87	7.2	3.9	29.0
17465	Ae	280	19	27	23	1.86	0.21	0.068	0.0078	0.460	0.099	0.0140		27	3.0	2.3	3.0
17464	Ae	280	21	37	40	2.04	0.21	0.071	0.0085	0.500	0.110	0.0130		25	3.2	2.0	3.0
17463	Bf	150	6	20	23	1.08	1.10	0.880	0.0057	2.000	1.300	0.0130		76	10.0	6.2	3.9
17462	Bf	140	6	20	29	1.10	1.38	1.000	0.0045	2.000	1.400	0.0110		74	9.2	6.2	3.0
17461	Bm	48	2	8	10	0.38	0.38	0.600	0.0023	1.000	0.870	0.0068		62	13.0	8.7	3.0
17460	Bm	44	2	10	8	0.33	0.21	0.370	0.0019	0.900	0.750	0.0056		74	18.0	12.0	3.0
17459	IC	36	2	7	6	0.27	0.14	0.200	0.0013	0.950	0.600	0.0056		39	26.0	10.0	3.0
17458	IC	36	2	7	6	0.27	0.14	0.280	0.0017	0.870	0.550	0.0083		35	25.0	10.0	3.0
17457	IIC	40	4	20	8	0.36	0.15	0.200	0.0009	0.620	0.450	0.0033		26	23.0	7.6	3.0
17456	IIC	36	1	13	9	0.30	0.13	0.170	0.0005	0.580	0.360	0.0015		21	18.0	6.0	3.0

SOIL PROFILE INFORMATION

Horizon Depth

Site: Palmerston-Canonto Conservation Area

Date: 81/06/11



Location Code: 1001189

Parent Material: sandy till

UTM: 18T 356000.0 498850.0

Vegetation: white birch, grasses

Classification: Orthic Melanic Brunisol

Landform: shallow till and rock ridges

Comments: earthworms throughout profile
organic mottles in Bf and Bm
horizons

Slope: level

Sample No.	Horizon	Depth (cm)	Colour	Sand (%)	Silt (%)	Clay (%)	pH (H ₂ O)	pH (CaCl ₂)	Organic C (%)	Total Nitrogen (mg/g)	Extr. S (ug/g)	Extr. SO ₄ (ug/g)	Avail. P (ug/g)	Total P (ug/g)	Avail. Al (ug/g)
18137	Ah	0-15	10YR 3/2	70	14	17	6.6	6.0	4	2.0			3		0.150
18136	Ah	0-15	10YR 3/2	81	15	4	6.6	6.0	4	1.7			3		0.130
18135	Bfj	15-35	7.5YR 5/4	82	10	8	6.4	5.7	1	0.5			3		0.440
18134	Bfj	15-35	7.5YR 5/4	79	11	11	6.4	5.5	1	0.6			3		0.080
18133	Bm	35-50	10YR 5/8	85	6	9	6.9	6.0	1	0.3			3		0.080
18132	Bm	35-50	10YR 5/8	88	7	6	6.6	5.7	1	0.2			3		0.560
18131	C	50-90		89	5	6	6.7	5.9	1	0.1			3		0.080
18130	C	50-90		88	5	7	6.6	5.8	1	0.2			3		0.080

SOIL PROFILE INFORMATION (cont'd.)

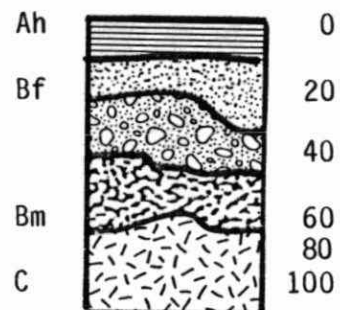
Site: Palmerston Canonto Conservation Area

Classification: Orthic Melanic Brunisol

Sample No.	Horizon	Exchangeable Cations (ug/g)				C.E.C. (m.e.) 100g	Pyrophosphate (%)			Dithionite (%)			CaCO ₃ (%)	Metals (ug/g)			
		Ca	Mg	K	Al		Fe	Al	Mn	Fe	Al	Mn		Zn	Cu	Ni	Pb
18137	Ah	1260	160	44		7.70	0.180	0.130	0.0500	1.300	0.270	0.2400	1	130	16.0	11.0	23.0
18136	Ah	1260	160	40		7.69	0.210	0.140	0.0520	1.200	0.270	0.2700	1	125	15.0	9.6	18.0
18135	Bfj	530	34	34		2.99	0.170	0.200	0.0087	1.100	0.320	0.0380	2	90	9.4	16.0	5.2
18134	Bfj	560	39	20		32.00	0.220	0.190	0.0120	1.200	0.360	0.0470	2	98	9.1	16.0	3.0
18133	Bm	490	16	9		2.61	0.099	0.100	0.0100	0.930	0.180	0.0370	1	38	13.0	14.0	4.3
18132	Bm	360	13	9		1.95	0.081	0.077	0.0042	0.820	0.140	0.0250	1	30	11.0	12.0	3.0
18131	C	530	16	15		2.82	0.065	0.037	0.0032	1.000	0.130	0.0520	2	43	17.0	15.0	3.4
18130	C	540	16	13		2.87	0.061	0.037	0.0051	0.860	0.120	0.0530	1	27	14.0	11.0	5.4

SOIL PROFILE INFORMATION

Horizon Depth



Site: Lanark County, Uplands Series

Date: 81/06/10

Location Code: 4001199

Parent Material: lacustrine sand

UTM: 18T 396300.0 497300 0.0

Vegetation: grass

Classification: Sombric Humo-Ferric Podzol

Landform: sand plain

Comments: soil resurvey
depth to bedrock 86 cm.
iron concretion (10YR 5/8) in C

Slope: level

Sample No.	Horizon	Depth (cm)	Colour	Sand (%)	Silt (%)	Clay (%)	pH (H ₂ O)	pH (CaCl ₂)	Organic C (%)	Total Nitrogen (mg/g)	Extr. S (ug/g)	Extr. SO ₄ (ug/g)	Avail. P (ug/g)	Total P (ug/g)	Avail. Al (ug/g)
18123	Ah	0-15	10YR 3/3	70	24	7	7.3	6.8	2	2.4			5		1.200
18122	Ah	0-15	10YR 3/3	71	21	7	7.4	6.6	2	2.5			5		0.340
18121	Bf	15-33	10YR 5/4	75	20	5	6.2	5.4	1	0.9			3		1.000
18120	Bfj	15-13	10YR 5/4	79	17	3	6.3	5.5	1	0.8			3		1.200
18119	Bm1	33-48	10YR 5/4	75	21	4	6.1	5.2	1	0.4			3		0.420
18118	Bm1	33-48	10YR 5/4	74	23	3	6.2	5.2	1	0.4			3		0.330
18117	Bm2	48-56	10YR 5/6	81	14	5	5.9	5.1	1	0.5			3		0.590
18116	Bm2	48-56	10YR 5/6	75	20	5	5.9	5.0	1	0.6			3		1.600
18115	C	56-86	10YR 4/4	81	16	3	5.6	4.7	1	0.2			3		1.100
18114	C	56-86	10YR 4/4	83	15	3	5.6	4.6	1	0.2			3		1.200

SOIL PROFILE INFORMATION (cont'd.)

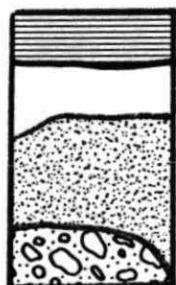
Site: Lanark County, Uplands Series

Classification: Sombric Humo-Ferric Podzol

Sample No.	Horizon	Exchangeable Cations (ug/g)				C.E.C. (m.e.) 100g	Pyrophosphate (%)			Dithionite (%)			CaCO ₃ (%)	Metals (ug/g)			
		Ca	Mg	K	Al		Fe	Al	Mn	Fe	Al	Mn		Zn	Cu	Ni	Pb
18123	Ah	1310	290	30		8.94	0.220	0.180	0.0120	0.720	0.250	0.0340	1	49	4.9	7.0	5.1
18122	Ah	1420	260	28		9.25	0.180	0.190	0.0150	0.590	0.230	0.0300	2	50	4.4	7.5	9.3
18121	Bf	320	50	5	1	2.04	0.240	0.230	0.0051	0.740	0.400	0.0200	1	30	4.3	7.9	3.9
18120	Bfj	290	71	5		2.03	0.160	0.170	0.0043	0.590	0.350	0.0180	1	26	4.8	9.9	3.0
18119	Bm1	180	25	5	5	1.13	0.110	0.130	0.0048	0.410	0.190	0.0290	1	13	3.7	7.8	3.0
18118	Bm1	240	27	4	3	1.46	0.110	0.130	0.0054	0.400	0.180	0.0270	1	16	4.7	7.8	3.0
18117	Bm2	190	11	5	3	1.05	0.190	0.190	0.0048	0.550	0.290	0.0240	1	29	5.1	8.7	3.0
18116	Bm2	230	11	5	3	1.28	0.180	0.170	0.0200	0.580	0.280	0.0200	1	34	4.6	9.3	3.0
18115	C	100	12	5	11	0.72	0.100	0.100	0.0360	0.440	0.130	0.0360		13	5.1	8.3	3.4
18114	C	93	7	5	5	0.57	0.077	0.086	0.0370	0.430	0.120	0.0370		14	5.4	9.4	3.0

SOIL PROFILE INFORMATION

Horizon	Depth	Site: Harcourt Crown Land, Bancroft	Date: 81/08/18
Ah	0	Location Code: 3001212	Parent Material: glacial/fluviail sand
Ae	10	UTM: 17T 723500.0 4994350.0	Vegetation: maple, aspen, shrubs
Bf	20	Classification: Orthic Humo-Ferric Podzol	
		Landform: spillway	Comments: very stoney at 35-90 cm
C	60	Slope: level	



Sample No.	Horizon	Depth (cm)	Colour	Sand (%)	Silt (%)	Clay (%)	pH (H ₂ O)	pH (CaCl ₂)	Organic C (%)	Total Nitrogen (mg/g)	Extr. S (ug/g)	Extr. SO ₄ (ug/g)	Avail. P (ug/g)	Total P (ug/g)	Avail. Al (ug/g)
18391	Ah	0-10	10YR 3/1	75	18	7	5.5	4.8	4	3.0			14		1.700
18390	Ah	0-10	10YR 3/1	70	21	8	5.5	4.9	4	4.4			27		2.200
18389	Ae	10-20	10YR 4/4	74	21	5	5.0	4.2	3	1.8			24		5.800
18388	Bf ₁	20-35	5YR 4/6	87	11	2	5.6	4.8	4	1.0			12		1.900
18387	Bf ₁	20-35	5YR 4/6	88	11	1	5.7	4.9	4	1.4			5		1.800
18386	Bf ₂	35-45	10YR 5/6	87	12	1	5.8	4.9	2	0.6			3		1.300
18385	C	45-90	10YR 6/4	82	17	1	5.7	4.8	1	0.3			3		1.100
18384	C	45-90	10YR 6/4	90	10	0	5.8	4.9	1	0.2			3		1.100

SOIL PROFILE INFORMATION (cont'd.)

Site: Harcourt Crown Land, Bancroft

Classification: Orthic Humo-Ferric Podzol

Sample No.	Horizon	Exchangeable Cations (ug/g)				C.E.C. (m.e.) 100g	Pyrophosphate (%)			Dithionite (%)			CaCO ₃ (%)	Metals (ug/g)			
		Ca	Mg	K	Al		Fe	Al	Mn	Fe	Al	Mn		Zn	Cu	Ni	Pb
18391	Ah	1050	140	120	4	6.66	0.310	0.210	0.0180	0.830	0.220	0.0220		54	6.7	3.8	13.0
18390	Ah	1480	210	150	8	9.59	0.480	0.220	0.0140	0.930	0.270	0.0190		56	6.7	3.8	15.0
18389	Ae	1170	68	60	61	7.13	0.280	0.140	0.0017	0.810	0.160	0.0043		27	4.7	4.2	6.1
18388	Bf ₁	480	43	56	20	3.07	0.820	0.620	0.0014	1.700	0.920	0.0066		54	8.2	6.6	3.0
18387	Bf ₁	460	37	48	19	2.88	0.530	0.590	0.0011	1.300	0.950	0.0059		50	7.2	6.1	3.0
18386	Bf ₂	130	12	37	14	0.99	0.230	0.290	0.0008	0.760	0.550	0.0026		45	13.0	9.0	3.0
18385	C	41	3	21	9	0.37	0.063	0.170	0.0003	0.370	0.230	0.0043		20	9.8	7.0	3.0
18384	C	34	3	24	7	0.32	0.039	0.120	0.0003	0.350	0.190	0.0045		18	9.7	7.5	3.0

SOIL PROFILE INFORMATION

Horizon	Depth	Site: Combermere Crown Land	Date: 81/08/18
LFH	0	Location Code: 4001213	Parent Material: glacial/fluviail sand
Bfj	15	UTM: 18T 297000.0 5025000.0	Vegetation: birch, grasses
Bm	20	Classification: Orthic Dystric Brunisol	
IC	50	Landform: spillway	Comments: sand varves at depth, LFH horizon was not sampled
IICK	100	Slope: level	

Sample No.	Horizon	Depth (cm)	Colour	Sand (%)	Silt (%)	Clay (%)	pH (H ₂ O)	pH (CaCl ₂)	Organic C (%)	Total Nitrogen (mg/g)	Extr. S (ug/g)	Extr. SO ₄ (ug/g)	Avail. P (ug/g)	Total P (ug/g)	Avail. Al (ug/g)
18400	Bfj	15-20	10YR 3/2	90	8	2	5.0	4.4	2	0.7			7		5.200
18399	Bm	20-30	10YR 5/6	98	2	0	5.7	5.0	2	0.4			4		0.640
18398	Bm	20-30	10YR 5/6	99	3	0	5.7	4.9	2	0.5			5		0.620
18397	IC	50	10YR 6/6	99	1	0	5.9	5.3	1	0.1			5		0.080
18396	IC	50	10YR 6/6	99	1	0	5.9	5.4	1	1.6			6		0.080
18395	IC	80	10YR 6/6	94	2	4	5.9	5.4	1	0.1			6		0.080
18394	IC	80	10YR 6/6	99	1	0	5.9	5.4	1	0.1			7		0.080
18393	IIC	100-120	10YR 6/4	99	1	0	5.9	5.2	1	0.1			4		0.090
18392	IICK	100-120	10YR 6/4	100	0	0	5.7	5.1	1	0.1			3		0.096

SOIL PROFILE INFORMATION (cont'd.)

Site: Combermere Crown Land

Classification: Orthic Dystric Brunisol

Sample No.	Horizon	Exchangeable Cations (ug/g)				C.E.C. (m.e.) 100g	Pyrophosphate (%)			Dithionite (%)			CaCO ₃ (%)	Metals (ug/g)			
		Ca	Mg	K	Al		Fe	Al	Mn	Fe	Al	Mn		Zn	Cu	Ni	Pb
18400	Bfj	30	2	9	38	0.57	0.160	0.240	0.0083	0.690	0.400	0.0280		45	7.8	5.1	5.4
18399	Bm	49	3	9	4	0.32	0.072	0.170	0.0013	0.940	0.630	0.0090	1	61	14.0	10.0	3.0
18398	Bm	45	3	9	4	0.31	0.087	0.200	0.0021	0.940	0.640	0.0120		60	12.0	10.0	3.0
18397	IC	34	2	10	1	0.22	0.026	0.130	0.0004	0.600	0.300	0.0047	1	35	18.0	9.3	3.0
18396	IC	34	3	14	2	0.25	0.011	0.069	0.0001	0.660	0.300	0.0052	1	33	19.0	9.5	3.0
18395	IC	30	2	11	1	0.21	0.018	0.088	0.0004	0.590	0.210	0.0033	1	24	16.0	8.1	3.0
18394	IC	30	2	12	1	0.20	0.015	0.070	0.0004	0.510	0.160	0.0040	1	22	17.0	7.7	3.0
18393	IIC	26	2	15	1	0.20	0.004	0.026	0.0001	0.310	0.065	0.0045	2	18	13.0	6.3	3.0
18392	IICk	15	2	12	2	0.14	0.007	0.031	0.0002	0.360	0.068	0.0085	7	21	14.0	5.9	3.0

SOIL PROFILE INFORMATION

Horizon Depth

Site: K & P Trail, Barryvale

Date: 81/08/19

Ahk

0

Location Code: 4001214

Parent Material: sandy till

UTM: 18T 364200.0 5013600.0

Vegetation: oak, birch

Classification: Orthic Regosol

Ck

7

Landform: shallow till and rock ridges

Comments: depth to bedrock 15 cm
very stoney in C horizon

20

Slope: very strong slopes

Sample No.	Horizon	Depth (cm)	Colour	Sand (%)	Silt (%)	Clay (%)	pH (H ₂ O)	pH (CaCl ₂)	Organic C (%)	Total Nitrogen (mg/g)	Extr. S (ug/g)	Extr. SO ₄ (ug/g)	Avail. P (ug/g)	Total P (ug/g)	Avail. Al (ug/g)
18402	Ahk	0-7	10YR 3/3	76	12	12	6.6	6.2	4	3.3			4		0.620
18401	Ck	7-15	10YR 4/6	81	15	4	6.4	5.8	1	0.4			3		0.080

SOIL PROFILE INFORMATION (cont'd.)

Site: K & P Trail, Barryvale

Classification: Orthic Regosol

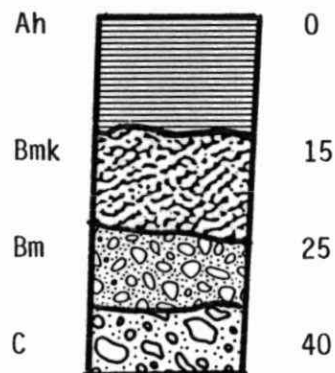
Sample No.	Horizon	Exchangeable Cations (ug/g)				C.E.C. (m.e.) 100g	Pyrophosphate (%)			Dithionite (%)			CaCO ₃ (%)	Metals (ug/g)			
		Ca	Mg	K	Al		Fe	Al	Mn	Fe	Al	Mn		Zn	Cu	Ni	Pb
18402	Ahk	740	10	20		3.82	0.067	0.027	0.0260	1.100	0.120	0.0450	17	64	21.0	14.0	23.0
18401	Ck	490	140	75		3.73	0.046	0.019	0.0026	0.590	0.079	0.0120	15	32	8.9	8.6	3.0

SOIL PROFILE INFORMATION

Horizon Depth

Site: Berwick Agreement Forest, Finch

Date: 81/08/19



Location Code: 4001215

Parent Material: lacustrine sand

UTM: 18T 491500.0 5002250.0

Vegetation: pine

Classification: Orthic Melanic Brunisol

Landform: sand plain

Comments: depth to watertable 70 cm
depth to faint mottling 50 cm
thick pine needles litter layer
very stoney in B and C horizons

Slope: level

Sample No.	Horizon	Depth (cm)	Colour	Sand (%)	Silt (%)	Clay (%)	pH (H ₂ O)	pH (CaCl ₂)	Organic C (%)	Total Nitrogen (mg/g)	Extr. S (ug/g)	Extr. SO ₄ (ug/g)	Avail. P (ug/g)	Total P (ug/g)	Avail. Al (ug/g)
18410	Ah	0-15	10YR 3/1	75	17	8	7.0	6.4	6	3.6			32		0.080
18409	Ah	0-15	10YR 3/1	74	8	17	6.8	6.2	6	4.1			29		0.110
18408	Bmk	15-25	10YR 4/6	90	3	7	7.3	6.6	1	0.5			3		0.080
18407	Bmk	15-25	10YR 4/6	87	5	9	7.3	6.6	3	0.6			3		0.080
18406	Bm	25-35	10YR 5/6	92	2	6	7.4	6.6	1	0.3			3		0.290
18405	Bm	25-35	10YR 5/6	92	3	5	7.4	6.6	1	0.2			3		1.000
18404	C	35-55	7.5YR 4/2	73	13	15	7.5	6.9	1	0.8			3		0.080
18403	C	35-55	7.5YR 4/2	70	15	15	7.5	6.9	1	0.8			3		0.170


SOIL PROFILE INFORMATION (cont'd.)

Site: Berwick Agreement Forest, Finch

Classification: Orthic Melanic Brunisol

Sample No.	Horizon	Exchangeable Cations (ug/g)				C.E.C. (m.e.) 100g	Pyrophosphate (%)			Dithionite (%)			CaCO ₃ (%)	Metals (ug/g)			
		Ca	Mg	K	Al		Fe	Al	Mn	Fe	Al	Mn		Zn	Cu	Ni	Pb
18410	Ah	1990	39	39		10.35	0.230	0.360	0.0600	1.100	0.390	0.1600	1	100	13.0	8.0	25.0
18409	Ah	2130	45	41		11.13	0.210	0.340	0.0720	1.000	0.350	0.1500	4	110	14.0	8.5	18.0
18408	Bmk	1970	8	12		9.94	0.130	0.140	0.0091	0.930	0.170	0.0210	8	44	3.7	8.0	3.0
18407	Bmk	620	10	14		3.23	0.140	0.170	0.0110	1.000	0.190	0.0230	10	50	3.7	8.8	3.0
18406	Bm	790	7	15		4.05	0.110	0.080	0.0081	0.740	0.110	0.0260	2	34	4.1	8.9	3.0
18405	Bm	550	9	19		2.85	0.110	0.083	0.0063	0.730	0.120	0.0190	1	40	3.6	9.3	3.0
18404	C	1350	16	30		6.95	0.220	0.130	0.0140	1.200	0.190	0.0680	1	65	7.5	13.0	3.0
18403	C	1750	33	47		9.11	0.200	0.140	0.0170	1.300	0.200	0.0820	1	75	9.5	15.0	4.2

SOIL PROFILE INFORMATION

Horizon	Depth	Site: Riverside Heights Crown Land, Chesterville	Date: 81/08/20
Oh	0	Location Code: 4001216	Parent Material: peat bog
		UTM: 18T 489950.0 4980350.0	Vegetation: maple, ferns
		Classification: Organic	
	20	Landform: peat and muck	Comments: bog conditions organic soils
		Slope: level	

Sample No.	Horizon	Depth (cm)	Colour	Sand (%)	Silt (%)	Clay (%)	pH (H ₂ O)	pH (CaCl ₂)	Organic C (%)	Total Nitrogen (mg/g)	Extr. S (ug/g)	Extr. SO ₄ (ug/g)	Avail. P (ug/g)	Total P (ug/g)	Avail. Al (ug/g)
18416	0h	0-20	10YR 2/1				6.1	5.7	32	17.3			19		0.190
18415	0h	0-20	10YR 2/1				6.1	5.7	32	15.9			17		0.160

SOIL PROFILE INFORMATION (cont'd.)

Site: Riverside Heights Crown Land, Chesterville

Classification: Organic

Sample No.	Horizon	Exchangeable Cations (ug/g)				C.E.C. (m.e.) 100g	Pyrophosphate (%)			Dithionite (%)			CaCO ₃ (%)	Zn	Metals (ug/g)		
		Ca	Mg	K	Al		Fe	Al	Mn	Fe	Al	Mn			Cu	Ni	Pb
18416	Oh	10290	390	88		54.81	0.180	0.067	0.0170	0.320	0.076	0.0230	3	54	5.2	2.2	19
18415	Oh	10290	430	78		55.11	0.180	0.067	0.0170	0.310	0.071	0.0220	4	53	4.8	2.3	19

SOIL PROFILE INFORMATION

Horizon Depth

Site: Alexandria Crown Land, Alexandria

Date: 81/08/20

Ahk

0

Location Code: 4001217

Parent Material: till

UTM: 18T 518550.0 5024600.0

Vegetation: maple, elm, grasses

Bgk

15

Classification: Orthic Humic Gleysol

Landform: till plain/clay plain

Comments: depth to watertable 30 cm
Fe mottles below 15 cm
organic mottles in Bg

W

30

Slope: level

Sample No.	Horizon	Depth (cm)	Colour	Sand (%)	Silt (%)	Clay (%)	pH (H ₂ O)	pH (CaCl ₂)	Organic C (%)	Total Nitrogen (mg/g)	Extr. S (ug/g)	Extr. SO ₄ (ug/g)	Avail. P (ug/g)	Total P (ug/g)	Avail. Al (ug/g)
18414	Ahk	0-15	10YR 2/1	33	22	45	7.7	7.3	9	9.1			19		0.080
18413	Ahk	0-15	10YR 2/1	33	22	44	7.6	7.3	9	8.0			16		0.080
18412	Bg	15-30	10YR 4/2	48	21	31	7.8	7.2	1	1.1			7		0.080
18411	Bgk	15-30	10YR 4/2	59	16	25	7.8	7.1	1	1.3			6		0.080

SOIL PROFILE INFORMATION (cont'd.)

Site: Alexandria Crown Land, Alexandria

Classification: Orthic Humic Gleysol

Sample No.	Horizon	Exchangeable Cations (ug/g)				C.E.C. (m.e.) 100g	Pyrophosphate (%)			Dithionite (%)			CaCO ₃ (%)	Zn	Metals (ug/g)		
		Ca	Mg	K	Al		Fe	Al	Mn	Fe	Al	Mn			Cu	Ni	Pb
18414	Ahk	4100	150	110		21.99	0.200	0.190	0.0091	0.500	0.130	0.0140	8	390	23	10	22
18413	Ahk	2780	140	99		27.24	0.190	0.200	0.0086	0.510	0.140	0.0150	8	380	23	10	21
18412	Bg	3490	130	60		18.63	0.052	0.100	0.0070	0.340	0.100	0.0330	3	140	13	18	3
18411	Bgk	1790	63	37		9.53	0.068	0.120	0.0079	0.400	0.100	0.0430	17	140	12	17	3

SOIL PROFILE INFORMATION

Horizon Depth

Site: Mill of Kintail Conservation Area

Date: 81/08/14

Ah 0
15



Location Code: 4001219

Parent Material: glacial till

UTM: 18T 401150.0 5010800.0

Vegetation: beech, maple

Classification: Regosolic

Landform: shallow till and rock ridges

Comments: shallow pockets of soil

Slope: gently sloping

Sample No.	Horizon	Depth (cm)	Colour	Sand (%)	Silt (%)	Clay (%)	pH (H ₂ O)	pH (CaCl ₂)	Organic C (%)	Total Nitrogen (mg/g)	Extr. S (ug/g)	Extr. SO ₄ (ug/g)	Avail. P (ug/g)	Total P (ug/g)	Avail. Al (ug/g)
18185	Ah	0-15	10YR 3/2	55	27	18	5.3	4.5	2	1.7			3		1.8
18377	Ah	0-15	10YR 3/2	57	32	10	5.2	4.5	3	1.8			3		2.0

SOIL PROFILE INFORMATION (cont'd.)

Site: Mill of Kintail Conservation Area

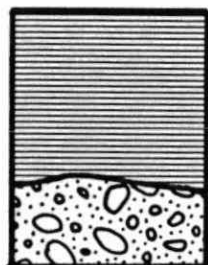
Classification: Regosolic

Sample No.	Horizon	Exchangeable Cations (ug/g)				C.E.C. (m.e.) 100g	Pyrophosphate (%)			Dithionite (%)			CaCO ₃ (%)	Metals (ug/g)			
		Ca	Mg	K	Al		Fe	Al	Mn	Fe	Al	Mn		Zn	Cu	Ni	Pb
18185	Ah	150	170	87	31	2.66	0.240	0.140	0.0080	0.800	0.160	0.0140		44	5.6	8.4	3.7
18377	Ah	1120	150	78	30	7.34	0.290	0.100	0.0073	0.810	0.160	0.0140		39	4.6	8.2	4.6

SOIL PROFILE INFORMATION

Horizon Depth

Ah



0

10

Site: Rideau Conservation Authority
(Hornung Property)

Location Code: 4001220

UTM: 18T 419800.0 4982300.0

Classification: Regosolic

Landform: limestone plain

Slope: level

Date: 81/08/13

Parent Material: sandy till

Vegetation: cedars, moss

Comments: bedrock near surface

Sample No.	Horizon	Depth (cm)	Colour	Sand (%)	Silt (%)	Clay (%)	pH (H ₂ O)	pH (CaCl ₂)	Organic C (%)	Total Nitrogen (mg/g)	Extr. S (ug/g)	Extr. SO ₄ (ug/g)	Avail. P (ug/g)	Total P (ug/g)	Avail. Al (ug/g)
18184	Ahk	0-10	10YR 2/1	81	5	14	6.6	6.0	5	1.9			3		0.43
18183	Ah	0-10	10YR 2/1	81	5	14	6.7	5.9	6	1.8			3		0.52

SOIL PROFILE INFORMATION (cont'd.)

Site: Rideau Conservation Authority (Hornung property)

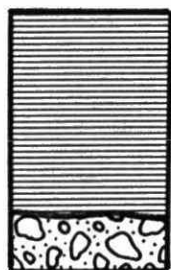
Classification: Regosolic

Sample No.	Horizon	Exchangeable Cations (ug/g)				C.E.C. (m.e.) 100g	Pyrophosphate (%)			Dithionite (%)			CaCO ₃ (%)	Metals (ug/g)			
		Ca	Mg	K	Al		Fe	Al	Mn	Fe	Al	Mn		Zn	Cu	Ni	Pb
18184	Ahk	390	290	69		4.46	0.110	0.095	0.0700	0.490	0.150	0.130	5	53	5.6	2.8	21
18183	Ah	160	200	42		2.52	0.120	0.094	0.0750	0.540	0.150	0.180	3	59	7.0	5.3	22

SOIL PROFILE INFORMATION

Horizon Depth

Ah/C



Site: Rideau Conservation Authority,
Naftel Property

Location Code: 4001221

UTM: 18T 439800.0 4967250.0

Classification: Regosolic

Landform: limestone plain

Slope: level

Date: 81/08/13

Parent Material: limestone bedrock

Vegetation: cedars, grasses

Comments: depth to limestone bedrock 20 cm

Sample No.	Horizon	Depth (cm)	Colour	Sand (%)	Silt (%)	Clay (%)	pH (H ₂ O)	pH (CaCl ₂)	Organic C (%)	Total Nitrogen (mg/g)	Extr. S (ug/g)	Extr. SO ₄ (ug/g)	Avail. P (ug/g)	Total P (ug/g)	Avail. Al (ug/g)
18361	Ah/C	0-15	5YR 2.5/2	50	27	23	6.5	6.0	5	4.0			3		0.370
18360	Ah/C	0-15	5YR 2.5/2	56	20	24	7.1	6.5	4	3.9			3		0.360

SOIL PROFILE INFORMATION (cont'd.)

Site: Rideau Conservation Authority (Naftel Property)

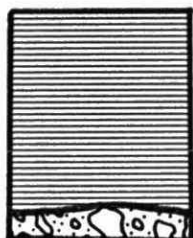
Classification: Regosolic

Sample No.	Horizon	Exchangeable Cations (ug/g)				C.E.C. (m.e.) 100g	Pyrophosphate (%)			Dithionite (%)			CaCO ₃ (%)	Metals (ug/g)			
		Ca	Mg	K	Al		Fe	Al	Mn	Fe	Al	Mn		Zn	Cu	Ni	Pb
18361	Ah/C	2030	430	65		13.78	0.330	0.170	0.0540	1.200	0.280	0.1100	1	53	11	11	22
18360	Ah/C	1420	310	49		9.70	0.400	0.180	0.0390	1.200	0.330	0.0860	3	56	12	11	23

SOIL PROFILE INFORMATION

Horizon Depth

Ah



0

10

Site: Eloida Lake, Cataraqui Conservation Authority

Location Code: 4001222

UTM: 18T 422850.0 4945450.0

Classification: Regosolic

Landform: limestone plain

Slope: level

Date: 81/08/13

Parent Material: limestone bedrock

Vegetation: maple, ironwood, grasses

Comments: depth to limestone bedrock 10 cm

Sample No.	Horizon	Depth (cm)	Colour	Sand (%)	Silt (%)	Clay (%)	pH (H ₂ O)	pH (CaCl ₂)	Organic C (%)	Total Nitrogen (mg/g)	Extr. S (ug/g)	Extr. SO ₄ (ug/g)	Avail. P (ug/g)	Total P (ug/g)	Avail. Al (ug/g)
18209	Ahk	0-10	10YR 3/1	51	24	25	7.5	7.2	5	3.7					0.110
18108	Ahk	0-10	10YR 3/1	54	19	27	7.5	7.2	6	3.4					0.120

SOIL PROFILE INFORMATION (cont'd.)

Site: Elolda Lake, Cataraqui Conservation Authority

Classification: Regosolic

Sample No.	Horizon	Exchangeable Cations (ug/g)				C.E.C. (m.e.) 100g	Pyrophosphate (%)			Dithionite (%)			CaCO ₃ (%)	Metals (ug/g)			
		Ca	Mg	K	Al		Fe	Al	Mn	Fe	Al	Mn		Zn	Cu	Ni	Pb
18209	Ahk	3030	480	79		19.23	0.160	0.100	0.0480	1.100	0.180	0.1200	9	71	13	8.4	21
18108	Ahk	2010	560	56		14.64	0.170	0.110	0.0470	1.000	0.190	0.1200	7	62	11	7.6	16

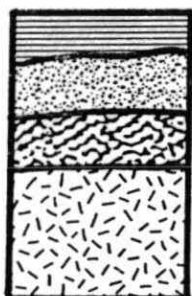
SOIL PROFILE INFORMATION

Horizon Depth

Site: Driftwood Provincial Park

Date: 81/07/31

Ah



0

Location Code: 4001223

Parent Material: deltaic sand

Bf

20

UTM: 18T 280800.0 5199200.0

Vegetation: pine, ferns

Bm

40

Classification: Sombric Humo-Ferric Podzol

C

60

Landform: sand plain

Comments: thick (7cm) pine needle litter layer

Slope: level

Sample No.	Horizon	Depth (cm)	Colour	Sand (%)	Silt (%)	Clay (%)	pH (H ₂ O)	pH (CaCl ₂)	Organic C (%)	Total Nitrogen (mg/g)	Extr. S (ug/g)	Extr. SO ₄ (ug/g)	Avail. P (ug/g)	Total P (ug/g)	Avail. Al (ug/g)
18347	Ah	0-15	10YR 3/4	83	17	0	4.8	4.1	2	1.0			20		11.00
18346	Ah	0-15	10YR 3/4	84	12	3	4.9	4.1	2	1.0			23		11.00
18345	Bf	15-30	5YR 5/8	91	7	2	5.4	4.6	1	0.6			24		2.90
18344	Bfj	15-30	5YR 5/8	92	8	0	5.5	4.7	1	0.5			20		2.00
18343	Bm	30-40	7.5YR 5/8	92	6	2	5.5	4.7	1	0.3			10		1.50
18342	Bm	30-40	7.5YR 5/8	95	4	1	5.7	4.7	1	0.2			8		1.30
18341	C	40-60	10YR 6/6	87	12	1	5.8	4.8	1	0.2			3		0.83
18340	C	40-60	10YR 6/6	92	7	0	5.6	4.8	1	0.2			4		1.10

SOIL PROFILE INFORMATION (cont'd.)

Site: Driftwood Provincial Park

Classification: Sombric Humo-Ferric Podzol

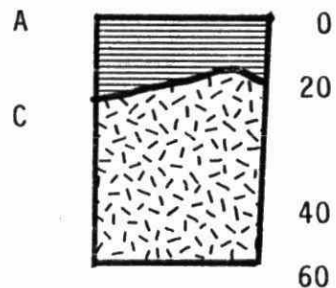
Sample No.	Horizon	Exchangeable Cations (ug/g)				C.E.C. (m.e.) 100g	Pyrophosphate (%)			Dithionite (%)			CaCO3 (%)	Metals (ug/g)			
		Ca	Mg	K	Al		Fe	Al	Mn	Fe	Al	Mn		Zn	Cu	Ni	Pb
18347	Ah	110	15	29	74	1.48	0.220	0.160	0.0070	0.540	0.330	0.0120		30	3.2	6.2	3
18346	Ah	86	13	23	69	1.28	0.200	0.200	0.0076	0.650	0.360	0.0140		34	3.7	7.1	3
18345	Bf	64	7	14	13	0.54	0.200	0.270	0.0027	0.880	0.710	0.0069		46	4.2	10.0	3
18344	Bfj	68	7	14	10	0.53	0.140	0.210	0.0016	0.720	0.610	0.0036		46	4.2	12.0	3
18343	Bm	34	4	12	9	0.32	0.072	0.180	0.0005	0.510	0.400	0.0017		37	6.2	14.0	3
18342	Bm	26	4	9	7	0.25	0.060	0.140	0.0006	0.450	0.350	0.0021		31	5.7	15.0	3
18341	C	34	5	21	6	0.32	0.040	0.080	0.0013	0.200	0.140	0.0036	4	15	8.2	12.0	3
18340	C	30	6	22	4	0.29	0.050	0.089	0.0016	0.220	0.150	0.0031	4	14	6.6	11.0	3

SOIL PROFILE INFORMATION

Horizon Depth

Site: Sager Conservation Area

Date: 81/07/27



Location Code: 4001229

Parent Material: lacustrine sand

UTM: 18T 296800.0 4903700.0

Vegetation: pine, oak, poplar, grasses

Classification: Cumulic Humic Regosol

Landform: sand plain

Comments: depth to bedrock 55 cm
Lake Iroquois shoreline

Slope: level

Sample No.	Horizon	Depth (cm)	Colour	Sand (%)	Silt (%)	Clay (%)	pH (H ₂ O)	pH (CaCl ₂)	Organic C (%)	Total Nitrogen (mg/g)	Extr. S (ug/g)	Extr. SO ₄ (ug/g)	Avail. P (ug/g)	Total P (ug/g)	Avail. Al (ug/g)
18313	A	0-17	10YR 3/6	90	7	3	5.1	4.3	1	0.5			25		4.200
18312	A	0-17	10YR 3/6	90	7	3	5.0	4.3	1	0.5			25		4.600
18311	C	30	10YR 5/8	85	6	10	5.6	4.7	1	0.3			13		0.630
18310	C	30	10YR 5/8	89	6	5	5.5	4.6	1	0.2			19		0.650
18309	C	45-55	10YR 6/8	86	6	7	5.9	5.0	1	0.2			12		0.190
18308	C	45-55	10YR 6/8	89	4	7	5.9	5.0	1	0.2			9		0.270

SOIL PROFILE INFORMATION (cont'd.)

Site: Sager Conservation Area

Classification: Cumulic Humic Regosol

Sample No.	Horizon	Exchangeable Cations (ug/g)				C.E.C. (m.e.) 100g	Pyrophosphate (%)			Dithionite (%)			CaCO ₃ (%)	Metals (ug/g)			
		Ca	Mg	K	Al		Fe	Al	Mn	Fe	Al	Mn		Zn	Cu	Ni	Pb
18313	A	64	8	28	31	0.76	0.110	0.210	0.0210	0.710	0.250	0.0640		48	4.2	6.6	7.6
18312	A	51	6	24	32	0.68	0.110	0.190	0.0190	0.690	0.240	0.0650		45	3.7	6.5	5.0
18311	C	68	6	8	4	0.45	0.110	0.160	0.0038	0.680	0.180	0.0130		31	3.7	8.9	3.9
18310	C	64	6	8	4	0.43	0.098	0.160	0.0026	0.690	0.200	0.0120		29	3.7	6.7	3.0
18309	C	85	6	16	4	0.55	0.065	0.110	0.0024	0.660	0.170	0.0098	2	29	7.2	9.6	4.6
18308	C	64	3	10	2	0.39	0.056	0.100	0.0013	0.640	0.160	0.0069		27	7.2	9.5	4.0

SOIL PROFILE INFORMATION

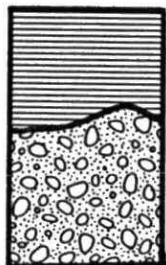
Horizon

Depth

Site: North Fredericksburg Conservation Area

Date: 81/07/28

Ah



0

10

Location Code: 4001231

Parent Material: sandy till

UTM: 18T 350350.0 4900750.0

Vegetation: elm, maple

Classification: Regosolic

Landform: limestone plain

Comments: exceedingly stoney at 15 cm

Slope: level

Sample No.	Horizon	Depth (cm)	Colour	Sand (%)	Silt (%)	Clay (%)	pH (H ₂ O)	pH (CaCl ₂)	Organic C (%)	Total Nitrogen (mg/g)	Extr. S (ug/g)	Extr. SO ₄ (ug/g)	Avail. P (ug/g)	Total P (ug/g)	Avail. Al (ug/g)
18315	Ah	0-10	10YR 3/1	70	12	18	7.1	6.6	4	2.9			3		0.100
18314	Ah	0-10	10YR 3/1	70	11	20	7.0	6.6	7	3.1			3		0.080

SOIL PROFILE INFORMATION (cont'd.)

Site: North Fredericksburg Conservation Area

Classification: Regosolic

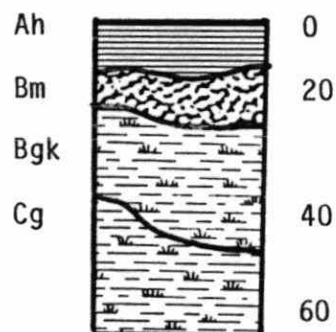
Sample No.	Horizon	Exchangeable Cations (ug/g)				C.E.C. (m.e.) 100g	Pyrophosphate (%)			Dithionite (%)			CaCO ₃ (%)	Metals (ug/g)			
		Ca	Mg	K	Al		Fe	Al	Mn	Fe	Al	Mn		Zn	Cu	Ni	Pb
18315	Ah	1860	8	54		9.48	0.200	0.140	0.0280	1.200	0.220	0.0380	2	88	9.8	15	25
18314	Ah	2360	87	58		12.64	0.200	0.140	0.0280	1.200	0.230	0.0400	2	94	10.0	16	27

SOIL PROFILE INFORMATION

Horizon Depth

Site: Raison River Provincial Park

Date: 81/07/29



Location Code: 4001232

Parent Material: lacustrine clay

UTM: 18T 537800.0 4997250.0

Vegetation: hemlock, beech, ferns

Classification: Orthic Humic Gleysol

Landform: clay plain

Comments: distinct mottles in Bg (7.5YR 6/6)
and in Cg (5YR 5/6)
some stones in Cg, mostly shale

Slope: level

Sample No.	Horizon	Depth (cm)	Colour	Sand (%)	Silt (%)	Clay (%)	pH (H ₂ O)	pH (CaCl ₂)	Organic C (%)	Total Nitrogen (mg/g)	Extr. S (ug/g)	Extr. SO ₄ (ug/g)	Avail. P (ug/g)	Total P (ug/g)	Avail. Al (ug/g)
18324	Ah	5-20	10YR 2/2	27	53	21	4.9	4.4	3	7.6			44		6.900
18323	Ah	5-20	10YR 2/2	23	56	21	5.1	4.5	3	4.8			47		6.800
18322	Bm	20-30	7.5YR 3/2	21	67	12	5.2	4.6	2	1.8			14		4.900
18321	Bm	20-30	7.5YR 3/2	23	68	9	5.5	4.7	1	1.1			7		3.100
18319	Bg	30-35	7.5YR 5/6	37	61	2	5.7	4.9	1	0.2			3		1.100
18320	Bgk	35-55	10YR 6/1	32	38	30	6.2	5.4	1	0.1			5		0.080
18318	Bgk	35-55	10YR 6/1	35	35	30	6.2	5.3	1	0.1			6		0.120
18317	Cg	55-60	10YR 5/1	11	40	50	6.3	5.5	1	0.3			5		0.080
18316	Cg	55-60	10YR 5/1	12	40	48	6.3	5.4	1	0.4			5		0.080

SOIL PROFILE INFORMATION (cont'd.)

Site: Raison River Provincial Park

Classification: Orthic Humic Gleysol

Sample No.	Horizon	Exchangeable Cations (ug/g)				C.E.C. (m.e.) 100g	Pyrophosphate (%)			Dithionite (%)			CaCO ₃ (%)	Metals (ug/g)			
		Ca	Mg	K	Al		Fe	Al	Mn	Fe	Al	Mn		Zn	Cu	Ni	Pb
18324	Ah	1090	180	160	64	7.95	0.080	0.210	0.0005	0.120	0.210	0.0001		36	4.1	7.0	19.0
18323	Ah	780	140	120	75	6.03	0.088	0.220	0.0007	0.110	0.250	0.0001		38	3.2	6.4	10.0
18322	Bm	310	58	31	60	2.68	0.099	0.290	0.0002	0.160	0.300	0.0001		50	1.8	8.2	3.0
18321	Bm	250	48	11	34	2.00	0.130	0.220	0.0002	0.340	0.200	0.0010		47	1.5	10.0	3.0
18319	Bg	140	39	5	4	1.08	0.120	0.057	0.0006	0.540	0.092	0.0017		28	2.0	8.6	3.0
18320	Bgk	1200	410	61	1	9.45	0.068	0.048	0.0016	0.530	0.062	0.0160	6	35	9.6	19.0	3.0
18318	Bgk	1330	410	59	1	10.07	0.065	0.045	0.0013	0.540	0.065	0.0170	10	32	9.7	18.0	3.0
18317	Cg	1710	820	120		15.41	0.110	0.091	0.0051	0.600	0.100	0.0230	1	56	17.0	29.0	4.4
18316	Cg	370	920	110	2	9.53	0.110	0.095	0.0051	0.670	0.110	0.0270	2	51	17.0	28.0	4.5

SOIL PROFILE INFORMATION

Horizon Depth

Site: Charlottenburgh Provincial Park

Date: 81/07/29

Ah 0

Location Code: 4001233

Parent Material: lacustrine clay

Bm 20

UTM: 18T 536800.0 49925500.0

Vegetation: pine, beech, maple

Bgj 40

Classification: Gleyed Melanic Brunisol

Landform: clay plain

Comments: faint mottling in B and C horizons
some large stones throughout
profile

Cgj 60

Slope: level

Sample No.	Horizon	Depth (cm)	Colour	Sand (%)	Silt (%)	Clay (%)	pH (H ₂ O)	pH (CaCl ₂)	Organic C (%)	Total Nitrogen (mg/g)	Extr. S (ug/g)	Extr. SO ₄ (ug/g)	Avail. P (ug/g)	Total P (ug/g)	Avail. Al (ug/g)
18332	Ah	0-20	10YR 3/2	28	48	25	6.2	5.6	2	2.7			3		0.500
18331	Ahk	0-20	10YR 3/2	28	48	25	6.1	5.6	2	2.3			3		0.180
18330	Bm	20-35	10YR 3/4	32	49	19	6.6	6.0	1	1.6			3		0.080
18329	Bm	20-35	10YR 3/4	38	40	22	6.7	6.1	1	1.4			3		0.092
18328	Bgj	35-45	2.5YR 5/4	50	35	15	7.1	6.4	1	0.3			3		0.970
18327	Bgj	35-45	2.5YR 5/4	52	25	23	7.0	6.3	1	0.5			3		0.230
18326	Cgj	45-60	10YR 4/4	62	19	19	7.2	6.4	1	0.5			3		0.080
18325	Cgj	45-60	10YR 4/4	63	16	20	7.1	6.4	1	0.5			3		0.080

SOIL PROFILE INFORMATION (cont'd.)

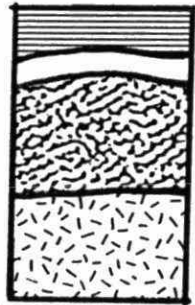
Site: Charlottenburgh Provincial Park

Classification: Gleyed Melanic Brunisol

Sample No.	Horizon	Exchangeable Cations (ug/g)				C.E.C. (m.e.) 100g	Pyrophosphate (%)			Dithionite (%)			CaCO3 (%)	Zn	Metals (ug/g)			
		Ca	Mg	K	Al		Fe	Al	Mn	Fe	Al	Mn			Cu	Ni	Pb	
18332	Ah	1630	200	39		9.82	0.200	0.130	0.0120	0.630	0.170	0.0230	3	42	6.2	11.0	3.0	
18331	Ahk	1620	180	33		9.65	0.190	0.120	0.0120	0.620	0.160	0.0230	6	39	6.2	10.0	3.3	
18330	Bm	1310	140	19		7.75	0.200	0.120	0.0100	0.600	0.160	0.0250	2	38	5.7	10.0	3.0	
18329	Bm	1420	160	19		8.37	0.200	0.120	0.0120	0.640	0.150	0.0310	1	39	6.7	11.0	3.0	
18328	Bgj	1000	140	19		6.13	0.058	0.033	0.0019	0.290	0.056	0.0120	1	19	3.2	9.9	3.0	
18327	Bgj	940	190	35		6.31	0.089	0.048	0.0030	0.570	0.098	0.0290	1	29	8.2	15.0	3.0	
18326	Cgj	1330	260	47		8.83	0.092	0.048	0.0030	0.660	0.110	0.0350	1	35	10.0	17.0	3.0	
18325	Cgj	1430	250	57		9.28	0.092	0.048	0.0028	1.200	0.120	0.0430	2	38	12.0	19.0	3.0	

SOIL PROFILE INFORMATION

Horizon	Depth	Site: Fitzroy Provincial Park	Date: 81/07/30
A	0	Location Code: 4001234	Parent Material: deltaic sand
Ae	20	UTM: 18T 404550.0 5037650.0	Vegetation: pine, elm, poplar, ferns
Bm	40	Classification: Orthic Sombric Brunisol	Comments:
C	60	Landform: sand plain	
		Slope: moderate slopes	



Sample No.	Horizon	Depth (cm)	Colour	Sand (%)	Silt (%)	Clay (%)	pH (H ₂ O)	pH (CaCl ₂)	Organic C (%)	Total Nitrogen (mg/g)	Extr. S (ug/g)	Extr. SO ₄ (ug/g)	Avail. P (ug/g)	Total P (ug/g)	Avail. Al (ug/g)
18338	A	0-17	10YR 4/2	91	6	3	5.4	4.7	1	0.6			35		1.900
18337	A	0-17	10YR 4/2	86	10	4	4.9	4.1	1	0.8			45		5.300
18339	Ae	17-20	10YR 5/1	91	5	4	4.6	3.9	1	0.8			45		7.800
18336	Bm	20-45	10YR 7/8	93	4	3	6.0	5.1	1	0.3			19		0.340
18335	Bm	20-45	10YR 7/8	94	3	3	6.0	5.1	1	0.2			19		0.430
18334	C	45-60	2.5Y 7/4	97	2	0	6.1	5.3	1	0.1			10		0.250
18333	C	45-60	2.5Y 7/4	96	2	2	6.2	5.3	1	0.1			12		0.190

SOIL PROFILE INFORMATION (cont'd.)

Site: Fitzroy Provincial Park

Classification: Orthic Sombric Brunisol

Sample No.	Horizon	Exchangeable Cations (ug/g)				C.E.C. (m.e.) 100g	Pyrophosphate (%)			Dithionite (%)			CaCO ₃ (%)	Zn	Metals (ug/g)		
		Ca	Mg	K	Al		Fe	Al	Mn	Fe	Al	Mn			Cu	Ni	Pb
18338	A	450	35	54	10	2.78	0.130	0.085	0.0046	0.350	0.110	0.0072		44	2.0	3.5	3
18337	A	300	29	53	48	2.35	0.120	0.074	0.0036	0.340	0.100	0.0062		41	1.7	3.4	3
18339	Ae	230	25	74	98	2.52	0.140	0.093	0.0038	0.310	0.100	0.0043		40	2.1	4.0	3
18336	Bm	130	13	26	2	0.83	0.062	0.074	0.0003	0.340	0.180	0.0010	1	22	3.9	7.7	3
18335	Bm	100	7	20	3	0.64	0.061	0.069	0.0002	0.300	0.150	0.0010	1	18	3.5	8.4	3
18334	C	85	6	24	1	0.54	0.021	0.030	0.0003	0.220	0.089	0.0029	4	17	3.3	7.7	3
18333	C	85	3	20	2	0.52	0.039	0.045	0.0003	0.230	0.098	0.0019	1	17	2.7	8.9	3

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